MARCH, 1952

Industrial FINISHING

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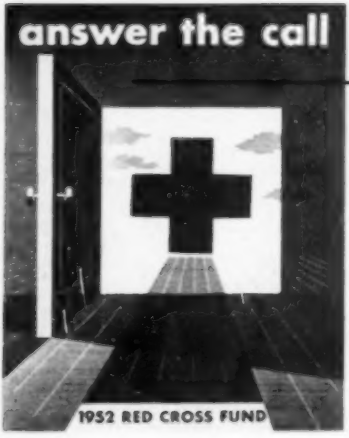

THE RED CROSS SLOGAN FOR 1952 . . .

Answer the Call!

The slogan is an appeal to all people to enroll in the Red Cross as partners in merciful help to victims of disaster, in service to members of the armed forces and their families, and in community programs of health and safety.

Our slogan, "With the Right Finish—you'll Finish Right," is symbolized by the Lilly Key, always ready to provide the "right" finish.

THE Lilly FINISHES

VARNISH COMPANY

Indianapolis, Indiana • Gardner, Mass.

THE LILLY COMPANY • High Point, N. C.

TO GIVE YOUR PRODUCT A GOOD START, GIVE IT AN INTERCHEMICAL FINISH!

Undercoats . . . Varnishes . . . Lacquers . . .
Enamels for Metal . . . Plastic . . . Wood

AULT & WIBORG, MURPHY, ROYALIN, AND IC ARE TRADEMARKS OF INTERCHEMICAL CORPORATION

Check How BEDE PAINT HEATERS Cut FINISHING COSTS!

BEDE PAINT HEATERS

★ First Choice Among Leading Manufacturers

Turn finishing waste into profits! With the amazing hot-spray method, using Bede Heaters, you get higher quality finishes. You cut loss from rejects. Faster production permits more jobs without costly additions of equipment. You save paint waste and cut thinner bills more than half.

Bede Paint Heaters are quickly and easily installed in any finishing operation. They require no major changes or additional equipment. Paint temperature and viscosity are thermostatically controlled by heating elements housed in cast aluminum. Proved by thousands of installations, there is a Bede model best suited to every industrial finishing requirement.

★ **SOMETHING NEW!**

• A list of users in many lines of manufacturing. Yours for the asking!

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INDUSTRIAL FINISHING SPECIALTIES

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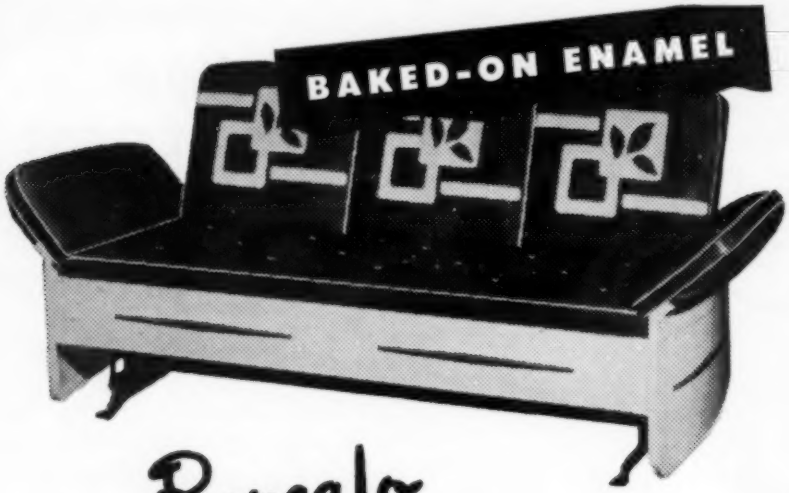

FOR Barcalo SUMMER FURNITURE

This comfortable looking pillow arm glider is one of many smart summer furniture pieces from the Barcalo Manufacturing company line. The finishes for this furniture had to be accurately blended in House & Garden Colors. In addition, they had to be durable if the outdoor pieces were to remain attractive in spite of hot sun or sudden shower. To obtain this colorful, durable finish Barcalo bakes-on two coatings: primer and bone enamel, both created to their specifications in our modern laboratories, where the important *plus* ingredients of production economy and saleability were also added.

The Better the Finish, the Better the Buy

GRAND RAPIDS VARNISH CORPORATION

GRAND RAPIDS, MICHIGAN

Makers of the Famous Guardsman Finish and Guardsman Cleaning Polish

MARCH, 1952
Vol. XXVIII, No. 5

CCA

A monthly magazine for finishing room and paint shop foremen, production superintendents, chemists, purchasing agents and company executives of industrial plants where product surface cleaning and finishing are major operations in the manufacture of parts and products.

Industrial FINISHING

W. H. ROHR, Editor P. C. BARDIN, Associate Editor

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28 TWENTY-EIGHTH YEAR OF PUBLICATION

Acceptance under Section 34.64, P. L. & R., authorized

Reduces Shop Noise. Preformed rigid panels 24-in. by 48-in., 1½-in. thick, completely enclosed in a printed plastic film, are being used successfully to reduce extreme noise in machine shops, factory offices, cafeterias, etc.

These baffles are adapted for use in areas where the cost of installing standard types of accoustical ceilings would be prohibitive, or impossible because of chain hoist, steam lines, heating ducts, lighting fixtures, sprinkler systems and skylights.

The baffles are made of fiberglass, and are suspended from taut wires running horizontally, close to the ceiling, across the area. Baffles are light weight, noncombustible and easily maintained. It is said, they provide a loudness reduction of 30% to 60%, depending upon spacing, materials used for walls, floor and ceiling, number of persons occupying the area, and kind of equipment used.

* * *

"Spot Welds" Panels to Walls. A new portable high-frequency electric gluing unit that actually "spot welds" plywood panels in place within a matter of minutes has been perfected, according to the United States Plywood Corporation.

The new gluing unit, endorsed by the plywood company after several years of study by its engineers, architects and chemists, is regarded as an important development because "it permits the use of ¼-inch plywood paneling to achieve a result which compares favorably with that previously possible only with more costly ¾-inch material."

The new "spot weld" method completely eliminates the use of exposed surface nails. The new portable machine causes the glue to set almost instantaneously.

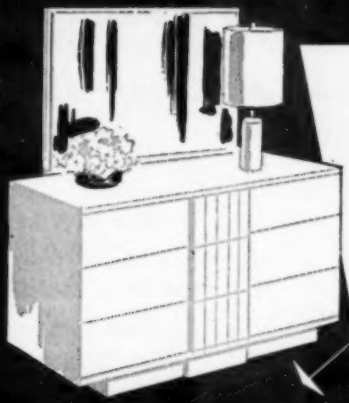
* * *

Prevents Stain on Aluminum. A chemically treated interleafing tissue paper that prevents water staining during storage of aircraft aluminum flat sheet products is announced by the Div'n of Metallurgical Research of Kaiser Aluminum & Chemical Corp. Available for use by the entire metal industry, the newly developed tissue already is being produced by several leading paper manufacturers.

* * *

Reinforced Plastic consists of polyester resins and fibrous glass. It can be produced in a clear, transparent material, or color can be permanently pigmented into it. The material is light weight, strong, dimensionally stable, has low thermal conductivity and is weather resistant.

Reinforced plastic is not a substitute for metal, wood or any other material. It has a combination of properties present in no other material. Uses for the new plastic include home appliances such as refrigerators, vacuum cleaners, etc., boats, fishing rods, construction units, garage doors,



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WATER-WHITE
LACQUERS & SEALERS?

We make the finest quality NON-YELLOWING, absolute Water-White Lacquers and Sealers on the market.

There is nothing comparable for use over delicate colors, light toners or special veneers.

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No. 1450
WATER-WHITE LACQUER

No. 1545
WATER-WHITE SEALER

Will not cold check

Order a trial drum of each, with our GUARANTEE of satisfaction

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INDUSTRIAL FINISHES

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PAINT-MISER®

PROVES FAR SUPERIOR IN ACTUAL TEST

Hamilton Manufacturing Company

Two Rivers Wisconsin

December 6, 1951

Ashdee Products, Inc.
18029 Dixie Highway
Homewood, Illinois

Gentlemen:

After investigating numerous finishing processes a little over a year ago, we decided on yours mostly because we felt it had all of the advantages of any automatic process plus some features not found in others. The fact that your unit uses 110 volt A.C. input, does not require endless royalty payments, finishes parts supported on simple work holders, and covers ordered edges satisfactorily without excessive build up were the deciding points.

Now after a little over six months of operation on a production line using well over 100 gallons of paint per day, we find results very pleasing. Material savings of at least 35% and labor savings of over 60% have been our experience. Furthermore, the amount of reinforcing required on recessed areas is so small that we have only one spray operator for this work and he uses less than 15% of the total amount of paint used in the whole system.

We feel that your unit has done everything expected and do not hesitate to recommend it to others.

Very truly yours,

HAMILTON MANUFACTURING COMPANY

F. A. Gorski
Material Research Division

FAG:LR

Manufacturers of { AUTOMATIC CLOTHES DRYERS, WOOD AND STEEL DRYERS, DRYETTE, DRYETTE PORTABLE DRYERS, DRYERS

Read what this Prominent Paint-Miser User says...

—Then Compare This Performance Against your Present Equipment

"NO ENDLESS ROYALTY PAYMENTS"

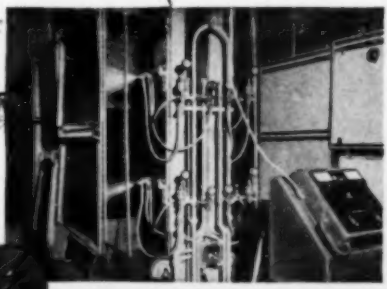
"LABOR-SAVINGS OF OVER 60%"

"MATERIAL SAVINGS OF AT LEAST 35%"

"WITHOUT EXCESSIVE BUILD-UP ON EDGES"

"RESULTS VERY PLEASING"

"RECOMMEND IT TO OTHERS"



Hamilton's own words and pictures tell the profit story of Paint-Miser, the modern, electronic paint-spray unit. Find out how you can enjoy these immense savings in your finishing department. Ask us to send a Paint-Miser expert to you. No obligation. Write or wire at once.

ASHDEE PRODUCTS, INC.

18029 Dixie Highway • Homewood, Illinois

automobile bodies and oil transmission pipes. Also, a wide use in military development programs, including aircraft, is indicated. About 30 companies are engaged in manufacturing reinforced plastics exclusively as custom component makers.

* * *

U. S. Tung Orchards. Tung orchards, new on the American agricultural scene in the past 20 years, will play an important part in meeting industrial needs for the toughest quick-drying natural oil known, says Dr. H. L. Crane, plant scientist of the U. S. Department of Agriculture.

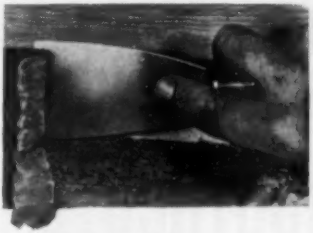
Dr. Crane, who directs research in tung improvements, points out that for the past five years U. S. tung orchards have produced an average of 16 million pounds of oil annually. This is only a sixth of natural peace-time requirements, but it will help meet emergency military needs when supplemented by imports from South America, and recently developed synthetic materials. Ordinarily U. S. manufacturers require about 100 million pounds of tung oil each year. Most of the oil for U. S. needs formerly came from China.

* * *

Pressure Sensitive Markers are available for marking wires, water and gas pipes, and for identifying various voltages carried in conduit. These markers take the guesswork out of piping and electrical systems, save valuable time in normal operation, and they become invaluable in an emergency.

* * *

Wax in Stick Form. A blend of special solid waxes put up in stick form in order to facilitate use in certain types of metal-working operations is now being marketed. "Stik-Wax" is said to provide a durable,



Refinish in less time

When the finish has to be removed, take it off the fast, easy way—with

NO-WASH REMOVER

Reduces the toughest paint, varnish or enamel to a soft sludge. No hard scraping, no sanding. Surface is left smooth and clean—free from any waxy film. Therefore, no after-wash is needed.

Help on Removing Problems

Our long and wide experience may save you time and money in solving your special removing problems. We have developed a very complete line of removers. So consult us on any questions you may have.

WILSON-IMPERIAL COMPANY
125 Chestnut St., Newark 5, N. J.

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125 Chestnut St., Newark 5, N. J.
We are interested in stripping finishes from

.....

Type of finish.....
Name.....
Company.....
Street.....
City.....State.....

KEEP SPRAY BOOTHS SAFER FROM FIRE!

. . . WITH NON-INFLAMMABLE

BOOTHCOTE #4

FOR DRY WALL BOOTHS AND THE NEW

BOOTHCOTE #5

FOR WATER WASH BOOTHS

Makes frequent cleaning easy. Premixed, ready to use, safe to store. Saves time, labor, no flaking off. Spray or brush on clean booth. When desired, operator peels off overspray in sheets. Advocated by insurance companies.

Money-back trial offer: 5 gals. **$6.25**

HYGRADE'S STERLING CREME

protects hands and arms from paint, grease, ink, etc. penetrating the skin. Soil washes off easily without harsh solvents or cleaners. 40 lb. pail **$12**

HYGRADE'S STERLING CLEANER

(WATERLESS HAND CLEANER)

dissolves grease, grime, fresh paint, tar, orinters' ink, shellac, mastic cement, etc. without water.

40 lb. pail $9.00

All prices f.o.b. Buffalo

HYGRADE

FOOD PRODUCTS CORP.

Industrial Div., 18 Stetson St.

Buffalo 6, N. Y.

clean lubrication for metal sanding, metal sawing, pipe cutting and threading, drilling, tapping, grinding and flush riveting.

Lubrication with Stik-Wax extends the life of saws, drills and cutting tools, as well as sanding and grinding surfaces. A midwestern manufacturer who tested the product reported that it tripled the life of his band-saw blades.

* * *

Engineers Needed. It is estimated that industry will invest 30 billion dollars in new equipment and methods this year to speed up production. The emphasis is the direct result of mounting costs and high break-even points. Between four and five billion dollars of the total investment will go into various branches of engineering.

The profession's biggest problem is that of having competent and trained manpower rather than a lack of ideas and facilities. Industry could use 100,000 engineers this year; yet only 20,000 will be graduated during each of the next three years, and about half of these will be called into military service.

Heretofore the profession has been made up almost exclusively of men, but it is of keen interest to note that 124 "lady" engineers have been recognized by Tau Beta Pi, the profession's honor society.

Here is an opportunity for both young men and women who possess the qualifications to study engineering.

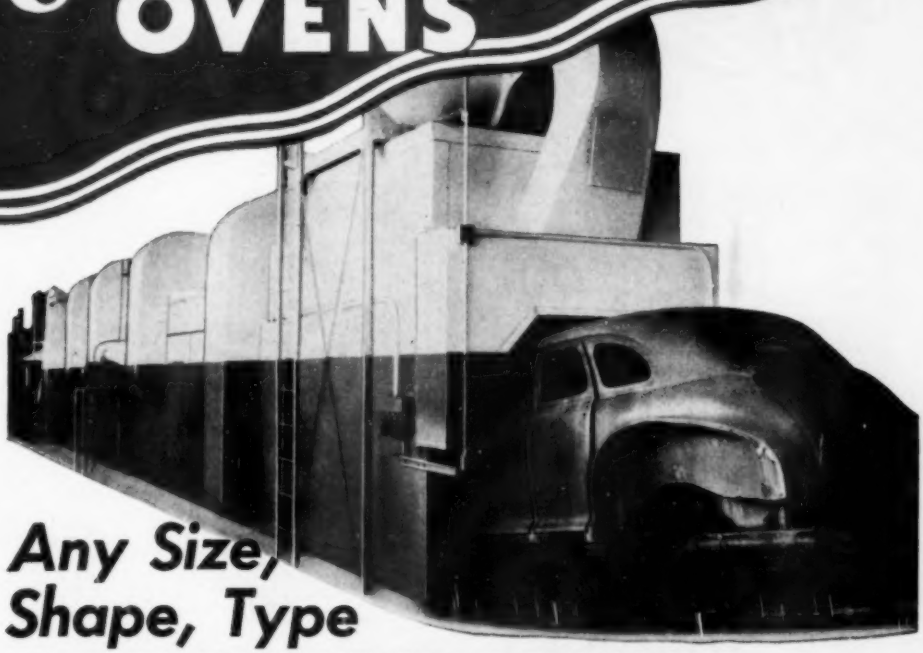
* * *

Acid-Proof Metal Coils and heat exchangers made of tantalum have been developed. Both hairpin and the wider U-bend coils and heat exchangers with tantalum internal tubes may be used in acid tanks over long periods of time with no deterioration due to corrosion. No heat insulating corrosion products impair the thermal efficiency of the equipment.

Engineered to your production

Schmieg OVENS

CENTRI MERGE



Any Size, Shape, Type
FOR EVERY KIND OF WORK

Whatever your requirements, Schmieg drying and baking ovens are designed and engineered to give you highest efficiency at lowest operating and maintenance cost.

Conveyor or box type, for any installation arrangement, compactly designed to save valuable floor space, engineered to fit smoothly into your production plan, Schmieg ovens *make it easy* for you to turn out the very best paint jobs.

Schmieg ovens give you automatic temperature control, insure against hot spots, are meticulously insulated to prevent heat loss. Every operating essential has been carefully designed and engineered to enable you to safeguard product quality.

So we say—No matter what size, shape or type of oven you may need, for any kind of work, Schmieg ovens give you most for your money.

Consult Schmieg engineers today.

THE best AIR PURGE is CENTRI MERGE

Schmieg INDUSTRIES INC.
Engineers & Manufacturers

312 PIQUETTE AVENUE • DETROIT 2, MICHIGAN

They are related

The tiny thumbtack . . . the gleaming refrigerator
. . . are "brothers" on the surface!
Durable, attractive finishes are important to both.
Good finishes are good business
for all manufacturers, merchants, consumers!

ZAPON

"SERVICE FROM EVERY ANGLE"

You name the product.
ZAPON will provide the "custom-tailored" finish for it.
ZAPON "Service From Every Angle" starts with specification
and development of the right finish . . .
follows through to final application
. . . helps solve finishing problems.

ATLAS POWDER COMPANY • WILMINGTON 99, DELAWARE
for Industrial Finishes • Stamford, Conn. • North Chicago, Ill.

DuBOIS SERVICE SLASHES BOOTH MAINTENANCE TIME

for eastern manufacturer!

Still another user of DuBois engineered spray booth maintenance reports a big pay-off! In one month alone, the use of DuBois FILMITE on dry area masking saved almost 1,200 hours of maintenance time.

Such savings . . . in time, money and materials . . . are the result of the wealth of experience and technical backing offered by every DuBois Representative.

DuBois engineered booth maintenance is not just a chemical or group of chemicals! It's a day-in, day-out service with three essentials: (1) thorough analysis of your operations by trained and experienced personnel, (2) installation of prescribed specialized compounds and (3) continuing inspection and service to keep your booths operating at peak efficiency and lowest possible cost.

These DuBois Products STOP Paint Booth Troubles!

KLARIFIANTS

. . . water-wash compounds to effectively control overspray.

FILMITES

. . . coatings for dry areas of spray booths.

STRYPP

. . . for periodic purging of old paint deposits in hydraulic systems.

FREE . . . authoritative reprint:

PROBLEMS OF SPRAY BOOTH MAINTENANCE

. . . yours for the asking, a survey of the practical aspects of paint booth maintenance.

The Du Bois Company

Cincinnati 3, Ohio • Los Angeles, Calif.

Protection by

TOUSEY!

Manufacturers of highly competitive items such as the garden tractor rely on TOUSEY finishes to beautify their products as well as protect them against excessive abuse and wear. ★TOUSEY'S sixty-seven year policy of quality and uniformity in all phases of production is the protection offered its ever growing list of customers.

TOUSEY PRODUCTS

DURACOTE for DURABILITY

THE TOUSEY VARNISH COMPANY

Ransburg NO. 2
PROCESS
The World's Finest
Spray Finishing Equipment
Ransburg finishing systems—in operation from coast to coast, and in foreign countries, as well —are acclaimed as
THE MOST EFFICIENT SPRAY COATING PROCESSES EVER DEVELOPED
Write for our brochure on the Ransburg No. 2 Process and learn more about the largest possible savings which can be obtained in your own finishing department. And, remember, Ransburg engineers are available to help you solve your spray finishing problems. Write or call.

RANSBURG ELECTRO-COATING CORP.

Indianapolis 7, Indiana

RANSBURG

How to double Abrasive Belt productivity

SPECIAL SERRATIONS ARE THE SECRET

"NEW "61"

SERRATED RUBBER

CONTACT WHEEL

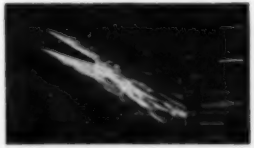
for Abrasive Belts

Glazing...the enemy of prolonged and productive belt life, is virtually eliminated when you use "61" contact wheels.

"61" WHEEL USERS ARE GETTING THESE DRAMATIC PRODUCTION RESULTS

Long-Life Cutting Action

Only the contact wheel is different in these two photos—same type of belt, same work, same surface speed, same camera exposure—but what a difference in cutting action!



• Spark pattern at 24 minute mark using belt on standard serrated wheel.

• Spark pattern at 80 minute mark using belt on new "61" wheel.

Non-Glazing That's Amazing

Unretouched photos tell the story. Same belt—same work—different wheels. Imagine—the belt section pictured far right has already run more than *three times as long* as the other section—still has plenty of abrasive life left, still is unglazed!

• Glazing on belt after 24 minutes using standard serrated wheel.

• Non-glazing on belt after 80 minutes using new "61" wheel.

Adopt the new "61"—the revolutionary contact wheel pioneered by CARBORUNDUM and now in use for hundreds of abrasive belt applications on backstand, swing frame and wide belt grinders.

Special serrations in the "61" wheel face are designed to cause a controlled breakdown in the bond of the abrasive belt. This action reduces belt glazing so sharply that you get as much as *double the productive life* from each belt.

Get the whole story now—including cost-cutting case histories on work like yours—from your CARBORUNDUM man or distributor salesman. Or write Dept. IF 82-55.

The new "61" wheel, a CARBORUNDUM engineering development, is typical of the constant technical advances you can expect from CARBORUNDUM, the abrasives pioneer. Yes, the "61" will give you increased productivity from *any* abrasive belt, but if you're not now using belts by CARBORUNDUM, try one. The two go hand in hand.

Only CARBORUNDUM

TRADE MARK

offers ALL abrasive products...to give you the proper ONE

"Carborundum" is a registered trademark of The Carborundum Company, Niagara Falls, N. Y.

3-WAY HELP
on all finishing problems

1 Technical help on FINISHING METHODS

Do you spray, dip, flow-coat or all three? Sherwin-Williams' wide background of experience in all types of production finishing methods—including electrostatic, automatic and hot spray—may help you solve production problems, whether defense or civilian.

2 Specialized help on FINISHING MATERIALS

Sherwin-Williams Industrial Production Line Finishes include a complete line of primers, reducers and finish coats for air drying and baking, for wood and metal, especially designed to meet civilian production line requirements.

3 Industry-wide experience on FINISHING DEVELOPMENTS

Sherwin-Williams' broad experience in finishes and finishing systems for all types of products provides every industry the benefit of improvements in materials and techniques developed in other specialized fields.

Fit the PRODUCTION LINE *too!*

How well a finish for use on your defense contracts fits government specifications is only part of the problem. The other part is *how well it fits your existing facilities and production line set-up.*

Sherwin-Williams offers industry-wide experience on both counts, extending through two World Wars. In providing technical assistance in converting any portion of your production, with least possible modification in equipment, Sherwin-Williams offers the services of Industrial Finish Specialists with broad experience in both civilian and defense production finishing.

If you have any problems involving government specification finishes it will pay you to investigate. Call, wire or write. The Sherwin-Williams Co., General Industrial Div., Cleve., 1, Ohio. Industrial Zone Offices located in Philadelphia, Pa., Newark, N. J., Chicago, Ill., Cleveland, O., Grand Rapids, Mich., Atlanta, Ga., Dallas, Tex. and Oakland, Cal.

SHERWIN-WILLIAMS
INDUSTRIAL FINISHES
for defense production . . . for civilian production

SPECIAL EFFECTS ...without special equipment

Here's the quick easy way to get rich, lustrous, hammered-finish effects —*without* hammering—*without* special spray equipment or methods!

Sherwin-Williams Dimenso® One-Coat enables you to give ordinary, flat metal surfaces beautiful three-dimension hammered effects with a single coat, with conventional spray equipment. Dimenso One-Coat relieves the monotony of large, plain surfaces . . . can be air-dried or baked . . . provides a finish of great depth and brilliance. Or, by adjusting method of application, deep opalescent effects can be obtained with the same material.

Dimenso One-Coat is one of a complete line of industrial quality product finishes available through Sherwin-Williams Branches in all principal cities.

Ask for a copy of descriptive brochure D-506 from your local Sherwin-Williams Branch, or write The Sherwin-Williams Co., General Industrial Division, Cleveland 1, Ohio.

Your "on-the-spot" source for
PRODUCT FINISHES

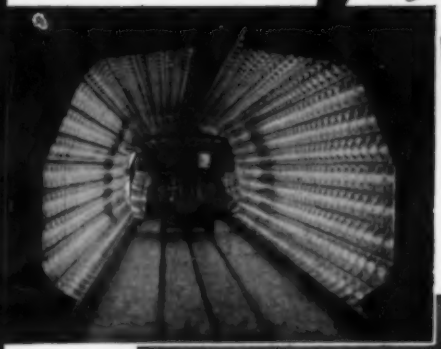
SHERWIN-WILLIAMS
INDUSTRIAL FINISHES

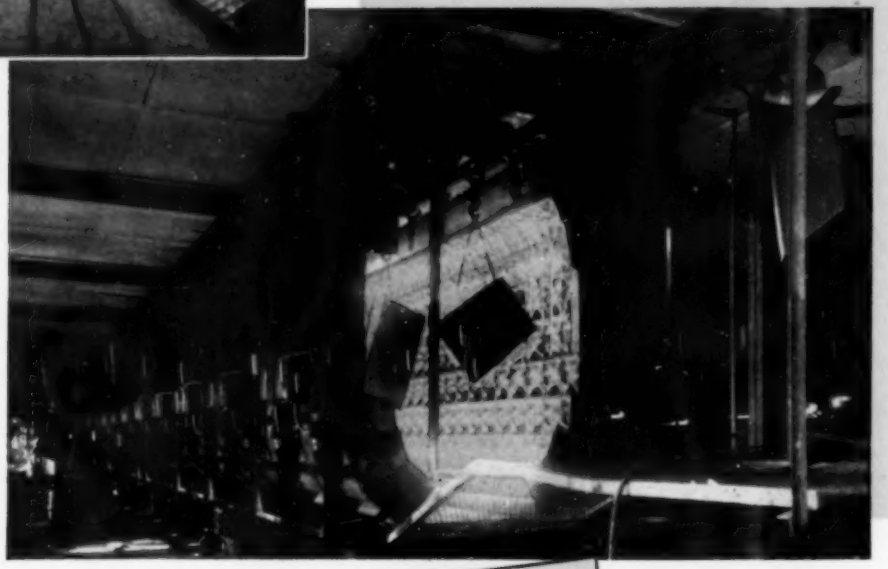
Profit with

THE MOST EFFICIENT

ONLY FOSTORIA INFRA

So Fast – So Durable





TYPICAL FOSTORIA OVENS AT INTERNATIONAL HARVESTER CO.

Larger picture shows 74 ft. ceiling-mounted oven for baking paint on sheet metal parts for military trucks in 30 minutes with 150 KW connected load. Inset picture shows 37 ft. oven for baking color finishes on truck cabs. A third oven 29 ft. long is used for touch-up finish baking on completed military trucks.

SEND FOR COMPLETE FACTS — Write for this brochure of technical facts on Infra-red with case histories of many installations. Tell us about your particular problem and we will include data directly applicable to your operations.

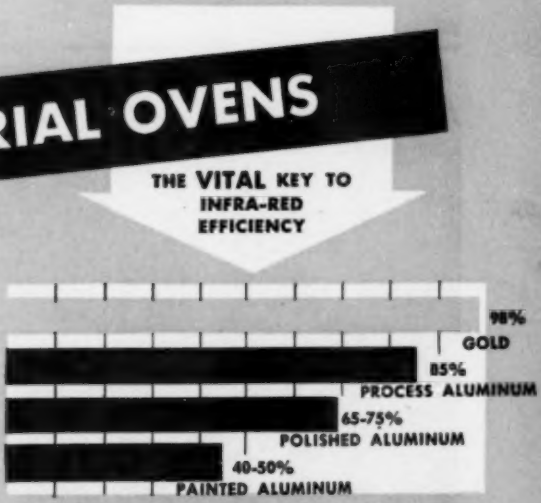
THE FOSTORIA

OF ALL INDUSTRIAL OVENS

-RED BAKES FINISHES

- So Uniform – So Low Cost

A Fostoria Infra-red oven is a lot more than a collection of lamps. Only Fostoria has Gold Plated Oven Walls and Evenray Reflectors — *the vital key to Infra-red efficiency.* Only Fostoria *directs, reflects and redirects* Infra-red rays *uniformly* with the *highest production utilization of energy.* No other equipment can match the speed, quality, and low "per piece" cost of Fostoria finish baking. Everywhere, finishing departments are cutting costs, speeding production, saving floor space, saving manhours by modernizing with Fostoria Infra-red ovens. Get the complete facts, now. Case histories of installations applicable to your production are available on request.



GOLD PLATED OVEN WALLS

Gold is by far the best reflector of Infra-red rays, 98% efficient. There is practically no energy loss through the gold plated Fostoria oven walls. Use of any other reflecting surfaces would absorb and waste 15% to over 50% of all Infra-red rays. (See chart). Obviously, the KW consumption per unit production is much less with a Fostoria oven.

EVENRAY REFLECTORS

Fostoria gold plated reflectors are scientifically designed to direct and uniformly distribute energy on the product being processed. There are no hot spots. Whatever the critical temperature of the finish is, Fostoria ovens produce the temperature *evenly* over the whole product surface. Only Fostoria has these vital features.

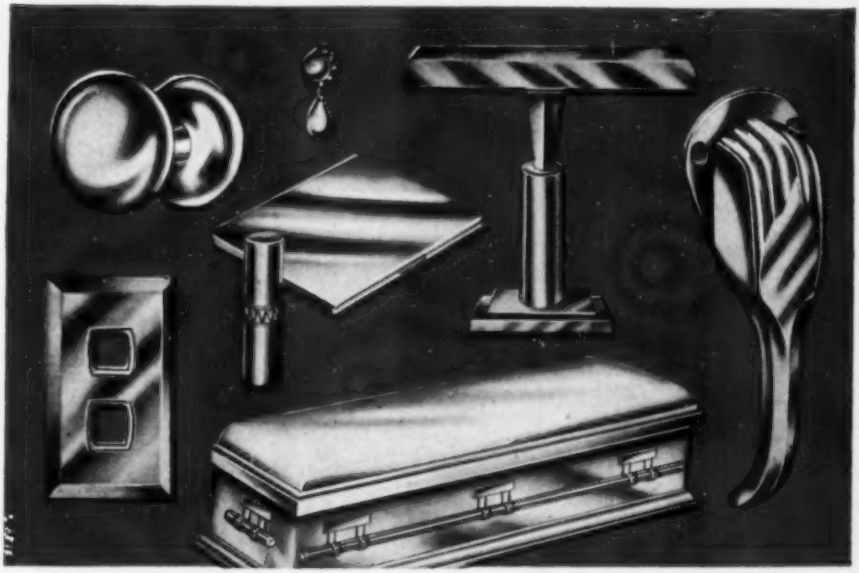
- **Highest productive utilization of energy — lowest energy loss**
- **Uniform heat distribution to all product surfaces**
- **Instantaneous heat, instantly controlled — no stand-by time — no overheating**
- **Lowest unit production cost and finest, most durable finishes**
- **Listed by Underwriters' Laboratories, Inc.**

INFRA-RED fostoria OVENS

PRESSED STEEL CORPORATION, Fostoria, Ohio

Oldest and Largest Manufacturers of Industrial Infra-red Ovens

◀ Battery of Paint Baking Ovens.
A-Type Continuous Paint Baking Oven.
Continuous Dry-Off Oven.
LANLY
FINISHING OVENS
THE LANLY COMPANY • 760 PROSPECT AVE
CLEVELAND, OHIO
Continuous Monorail Oven with Air Seals.
LANLY Specialized engineers are daily consulting with progressive manufacturers and meeting the need for high grade, uniform, finishing oven production at satisfactory volumes.
Continued repeat orders vouch for LANLY competence.
Complete information and literature supplied upon request.
◀ Batch-Type Oven.
Lay-Down Porcelain Enamel Dryer. ▶
Multiple-pass Finishing Oven.



NOW... simulate copper, brass and bronze on products like these with M & W PLATELUSTRE

Don't let critical metals put a *needless* crimp in your production!

Take zinc or steel—apply a coating of one of the new PLATELUSTRE finishes. You wind up with products and parts that look so much like copper, brass and bronze that *the eye can scarcely tell the difference!*

Whether you have been using now unavailable copper and its alloys for *making* products or for *plating* products, you will find these new M & W finishes *equally* effective in keeping your plant running. There are types for air-drying and baking schedules—pick the one that best fits *your* production requirements.

Let an M & W Technical Service Engineer show you—*right in your own plant*—how easy these PLATELUSTRE coatings are to use, and what striking effects they produce. Or, if you prefer, write for free literature.

PIONEERS IN PROTECTION

OUR 76th YEAR

M & W CO. 1876

MAAS & WALDSTEIN CO. 438 RIVERSIDE AVE. NEWARK 4, N. J.

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STYRENATED ALKYDS are resultant resins made by copolymerization of styrene and phthalic alkyd resins. Styrenated alkyds were first introduced in 1948. The outstanding properties of these styrenated resins are exceedingly fast drying, hardness, durability and color retention.

Rx

Watson-Standard STYRENATED ALKYDS FOR Metal Finishing

THE alertness of the Watson-Standard technical staff enables us to bring to you Product Finishes which incorporate the latest developments. Our laboratories are continuously striving to improve the present line and to create new products for the metal decorating industry. We are progressive enough to know that no product is perfect. Constant vigilance is needed for improvement.

We invite you to avail yourselves of the facilities of our laboratory know-how.

• *Write for your copy of article "Vinyl Coatings for the Metal Decorator."*

Watson-Standard CO.

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BURDETT OVENS
featuring
Gas-Fired "Radiant Heat"

Here's Proof!

From an electrical manufacturer:
"Products that required 60 minutes to bake with our previous equipment . . . now go through the oven in 20 minutes."

From a spring manufacturer:
"We are getting a very fine bake in one half the time as our present conventional type ovens and, of course, it is much quicker to bring up to the desired temperature thereby saving gas and maintenance."

From an air-conditioner manufacturer:
"We are operating this cleaning and painting operation through a Burdett gas fire burn-off and bake oven at about one-half our previous cost."

A large manufacturer of diesel engines found: . . . that core drying formerly requiring 12 hours is now being done in only 12 minutes with much better results.

It's No Mystery!

Burdett "Radiant Heat" — the heart of every Burdett Oven — achieves these remarkable results in drying paints, enamels and lacquers, flash coat drying, burn-off and rust inhibiting, de-greasing, water dry-off, core baking, soft metal melting and food processing, because it features:

- Instant Heat Transfer
- Deep, Thorough Heat Penetration
- Fast Start Operation
- Virtual Elimination of Fuel Waste — combustion is clean and complete.

Regardless of Your Operation

you owe it to yourself and your trade to ask for Burdett Oven recommendations. There's no obligation until you sign on the dotted line — and sign you will when you learn all the facts of how little it costs, how fast it performs, and how perfect the results.

Test runs — on your product — will be made for you at the Burdett plant without obligation. See it run — see the savings — see the results.

Burdett "Radiant Heat" Gas Burners can easily be installed in present equipment with revolutionary results and savings — ask about it!

Burdett Installation in Farm Machinery Manufacturing Plant: Flow control parts — three colors in 350° F. heat zone at same time — 5 minute baking time. Customer highly recommends the Burdett Oven.

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MANUFACTURING COMPANY

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OVENS AND "RADIANT HEAT" GAS BURNERS

We Can Help You

Find the **RIGHT** Answer to **YOUR** Finishing Problem

Here's a Typical Example —

When certain metal manufacturers found they could no longer chrome plate, or that they could use only "scant" chrome plating . . .

We developed Clear Coatings (baking and air-dry types) which give "better than the original" service in two ways:

1. In conjunction with chemical preparation to closely simulate chrome plating or brass.
2. To give long-life protection to scant chrome plating (chrome over copper without nickel).

Take advantage of this *proved* ability to develop special finishes for all purposes—and to supply fine civilian and government specification finishes of all types.

Send details of your requirements

Strathmore Products, Inc.

1970 W. FAYETTE ST. Phone 4-2118 SYRACUSE 4, N. Y.

CLEANED, DIPPED
FINISH BAKED
by this

DESPATCH

Continuous Conveyor FINISHING SYSTEM

To meet a stepped-up production schedule for Uncle Sam, the Ceco Steel Products Corporation of Chicago, installed this DESPATCH Finishing System used for cleaning, painting and finish baking of airplane landing mats.

The system comprises a gas heated, 2-stage, dip cleaning unit with alkali wash and hot water rinse, a paint dip tank and single pass finish bake oven of bottom entry, "A" type design. The oven is gas-fired and operates at a maximum temperature of 350°F. Material is suspended from cross rods on a continuous conveyor, which returns to the loading zone over the top of the oven.

Fifty Years' Experience

DESPATCH CAN HELP YOU BOOST PRODUCTION

Through 50 years of continuous research and on-the-job experience Despatch engineers have been accumulating facts and figures on how to give you better, higher producing finishing systems. Today, you benefit by these years of experience when you call on Despatch to help you. Despatch engineers will gladly analyze your requirements . . . will plan, select, coordinate and install complete Finishing Systems or individual units.

WRITE OR WIRE TODAY TO DEPT. E.

FIFTIETH ANNIVERSARY
DESPATCH OVEN COMPANY

Painting Aluminum Awnings

ALUMINUM AWNINGS have to withstand as much and probably a great deal more exposure from the elements than any other product. They are installed all over the world—in the far north, in countries close to the equator, along the seaboard, and in the fume laden air of highly industrialized areas — therefore the finish must be durable. The same applies to aluminum umbrellas used on the beach, in gardens and country clubs.

What makes the paint job stay bright and last so long in all kinds of weather? Correct and careful surface preparation to promote paint adhesion—then drying, tack rag wiping, spraying brightly colored enamel and oven baking the enamel coating.

Preparing Surfaces for Spray Painting

Aluminum awning and umbrella sections are loaded into metal baskets to prepare their surfaces for painting. These loaded baskets are handled by an electric hoist that travels along an overhead monorail. Parts are lowered into the first tank which contains a phosphoric acid solution which is maintained at a heat of 170° F. Next follows a cold

BY SIDNEY H. GLICKMAN
Plant Manager, KoolVent Metal Awning Co. of Chicago

water rinse; then into an Alodine solution at 110° F., followed by a cold water rinse.

In the last tank the aluminum parts are dipped into a mild chromic acid solution at 110° F. Surface cleaning and preparation requires about ten minutes.

Blow Clean With Air; Tack Ragging

As sections are removed from the baskets, excess water is blown off and they are sorted for size as they are placed in racks where they air dry for 30 minutes.

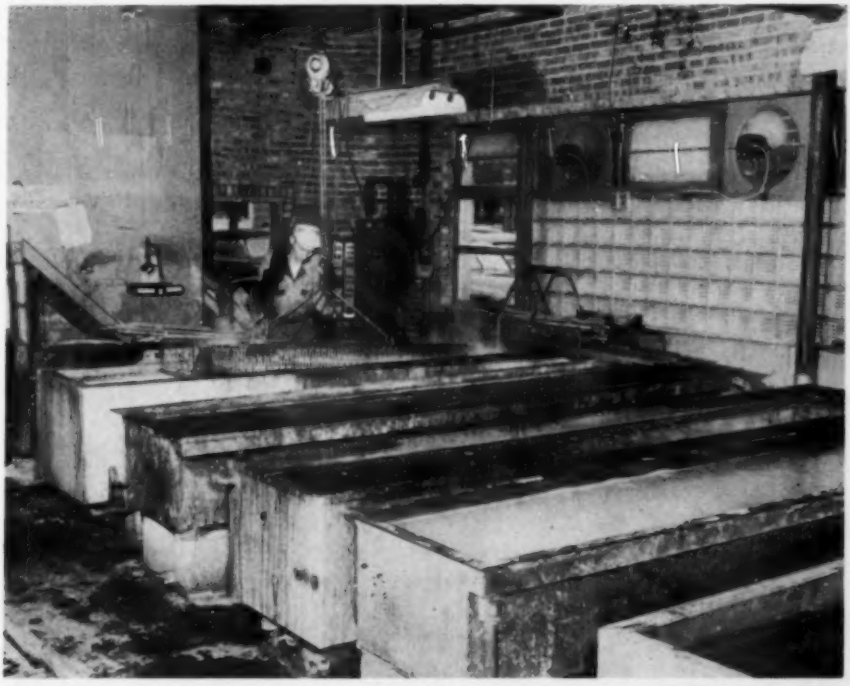
After drying, the sections are tack ragged and component parts are sorted for specific orders as they are placed in castered trucks to be delivered to spray booths.

Conveyorized Spray Booths; Infra-Red Oven Baking

Long length sections go to a two-man water-wash spray booth, while short sections and parts move to a one-man water-wash booth.

The floor of the spray booths is elevated about 4-ft. to permit a crossbar conveyor to operate under the floor and through the booth. Sections are sprayed on the sta-

(Continued on page 28)



Surface cleaning and preparation tanks where aluminum sections are readied for finishing. A traveling electric hoist enables operator to transfer, lower and lift loaded metal baskets.

tionary floor of the booth, then placed on the crossbar conveyor to be carried through the bake oven.

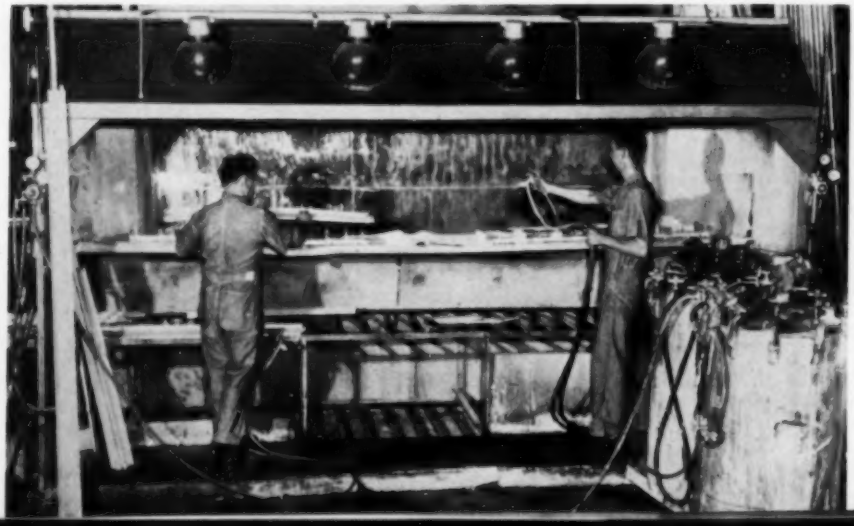
There are some logical reasons for this setup. Aluminum awnings and umbrellas are finished in 15 standard colors; also, there are special colors for individual firms who have established a definite color through national advertising. Sometimes it is necessary to change colors as often as six times within an hour. The crossbar oven conveyor runs continuously, regardless of time out for change of color.

We use synthetic enamel having an average viscosity of 21 seconds, depending upon color, as measured in a No. 4 Ford cup; it is sprayed at an atomizing pressure of 90-lbs., and fluid pressure of 45-lbs.

The oven conveyor carries parts through an infra-red gas oven where the finish is baked for eight minutes at 350° F. After cooling, the finished parts are inspected and assembled for shipment. [END]

Here is the one-man water-wash spray booth where short sections and parts of aluminum awnings and umbrellas are spray painted.

At two-man water-wash spray booth where long length aluminum sections are spray painted. A crossbar conveyor operating under booth moves painted parts to and through baking oven.



28 Years of Experience In the Sale and Service of

CHEMICALS TO CLEAN and PREPARE METAL for PAINTING

Surphos CLEANER and PRODUCER OF PHOSPHATE COATINGS.

Sol-Klean PHOSPHORIC ACID RUST MOVER AND ETCHER.

Industro ALKALI CLEANERS, STRIPPERS and AIR WASH COMPOUNDS.

Industrosolv SOLVENT EMULSIONS FOR SPRAY WASHING MACHINES.

SOL-KLEAN prepares steel and aluminum for painting, removing rust, oxide and oil. It etches the metal and gives a thin phosphate coating. One volume of Sol-Klean, diluted with 3 volumes of water, usually brushed on the metal at room temperature. It penetrates oil and dissolves rust. Sol-Klean is removed together with the dissolved oil and rust by wiping with rags or flushing with water. Metal may also be cleaned and treated by immersion in hot Sol-Klean and rinsing in water. Sol-Klean is non-inflammable and evolves no toxic or corrosive fumes.

SURPHOS cleans and produces a phosphate coating on sheet steel, machined and cast iron. It anchors the paint finish and increases its humidity and salt spray resistance. Use hot (one ounce per gallon solution) in Power Wetting Machine or dip tank. Acid proof equipment not needed.

NOTE:

Consult Us On Your Government Specification Requirements

INDUSTRIAL CHEMICAL PRODUCTS COMPANY

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IN CANADA, MADE AND SOLD BY BOYLE CHEMICALS LTD. LONGBRANCH, ONT.

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As a result of so many requests, the Ferro Corp., 4150 E. 56th St., Cleveland 5, Ohio, has formed a Ceramic Arts Supplies Division to sell at retail and by mail, a complete line of ceramic art supplies, including kilns.

Headquarters of the new division are in Bedford, Ohio, a Cleveland suburb, where a combination office-retail store has been established. Mail orders, expected to account for the bulk of the division's sales, will be handled through this office.

USE PREP PRODUCTS!
TO MEET GOVERNMENT SPECS.
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MIL-C-5541 USA-57-02C
For other Gov't Specs, write for Specification Data Sheet
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Multi-Purpose, Corrosion-Resisting, phosphate coating and cleaning product for mechanical cleaning systems . . . Described in Prep-n-Cote Bulletin 48-91.
Metalprep
General all-purpose Rust Remover and Metal Cleaner, available in wipe-off and dip type grades . . . Described in Metalprep Bulletins 50-34 and 50-37.
Lyfanite
Corrosion-proof Coating for Aluminum Alloys, providing thousands of hours of salt spray and humidity resistance . . . Described in Lyfanite Bulletin 49-98.
Galvaprep
Provides greater paint adhesion on Galvanized Iron, Galvanneal and other zinc-coated surfaces . . . Described in Galvaprep Bulletin 48-89.
"PREP PRODUCTS Used First... Make Your Paint Finish Last"
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Heavy Rust and Light Scale Remover; non-corrosive on surrounding equipment . . . Described in Prep-Pik-L Bulletin 49-3
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Economical process to preserve Ferrous Metals from rusting during fabrication and interim storage periods . . . Information on request.
Alumiprep
General all-purpose Metal Conditioner for Aluminum Alloys, available in wipe-off and dip grades . . . Described in Alumiprep Bulletin 50-62.
Emulsoprep
Emulsion and Alkaline Metal Cleaners, available for all types of metals and applications, dip or spray . . . Described in Emulsoprep Bulletin 50-61.
. . and General PREP Bulletin 48-60
NEILSON CHEMICAL COMPANY
3682 Tecumseh Rd. Windsor, Ont.
6562 BENSON ST., DETROIT 7, MICH.
3411 Union Pacific Ave. Los Angeles 23, Calif.

How We Keep Conveyor Chain & Hooks Clean

IF YOU were asked, how can we keep our finishing conveyor chain and hooks clean, you would be justified, in a measure, by answering that under correct conditions they should not need cleaning. That is true in spray finishing because if a sufficient air velocity is maintained across the face of the spray booth, the overhead chain should not become coated with overspray.

Conditions sometimes alter cases. We use a flow coater in finishing our product, and while the conveyor chain is elevated well above the two upper flow nozzles, some of the synthetic enamel primer splashes up on the chain. The flow coater operates under 20-lbs. pressure. We could reduce this pressure and probably prevent most of the splash and keep the conveyor chain fairly clean, but then we would have to reduce our conveyor speed; that would mean a reduction in the volume of production. In any event the conveyor hooks would have to be cleaned or burned

Rugged Enamel stands up!

Road Builder stands out!

Caterpillar DW21 Tractor and Scraper in workout at proving grounds of Caterpillar near East Peoria, Illinois. An R-M enamel has to be good to stand up here!

Caterpillar Machines catch the eye with R-M "Hi-way" Yellow!

Over the hills and over the highways, Caterpillar road builders *stand out!* Finished in bright, bold and durable R-M "Hi-way" Yellow enamel, this powerful equipment presents an outstanding example of how an R-M Color actually *goes* to *work* for the product on which it is used. As a *very durable enamel,* it prolongs product life; as a *highly visible color,* it helps prevent accidents; as *a bright color,* it draws the eye to Caterpillar equipment; and as *a consistent color,* it promotes equipment sales through easier identification with the product name. R-M lacquers, enamels and undercoats are used on the finest passenger cars in America, on hard working farm and earthmoving equipment, on giant Diesel locomotives and many others. Ask us how R-M color *can work for your product!*

Write for booklet on U. S. Government Specification Finishes

R-M

RINSHED-MASON CO.

Manufacturers of fine lacquers, enamels and undercoats for leading products of industry.

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WHAT'S THE BEST WAY TO STRIP PAINT FROM METAL PARTS TOO LARGE TO BE SOAKED IN TANKS?

See Page 3

Oakite's FREE Booklet on Paint Stripping

answers many questions that will lead you to better stripping procedures. You'll want to read more about:

What's the best way to strip large areas of structural metal when steam is available? *See page 5.*

What's best when steam is not available? *See page 7.*

What is the cheapest way to strip metal parts in large volume? *See page 9.*

What are the best ways to prepare stripped surfaces for repainting? *See page 11.*

What strippers are best for removing oil-base paints?... Synthetic enamels, alkali-resistant plastics or resin-based paints?... Japans, wrinkle finishes, nitrocellulose lacquers, alkyds, phenolics and ureas? *See page 12.*

FREE For a copy of "*How to STRIP PAINT*" write Oakite Products, Inc., 32F Thames St., New York 6, N. Y.

OAKITE

SPECIALIZED INDUSTRIAL CLEANING MATERIALS • METHODS • SERVICE

Technical Service Representatives Located in Principal Cities of United States and Canada

off at reasonably regular intervals.

We keep both the conveyor chain and the hooks clean in a chain and hook, two-stage washer. As the chain and empty hooks enter the washer, an alkali solution (2-oz. alkali per gallon of water) heated to 160° F. is sprayed on the conveyor chain and hooks at a pressure of 25-lbs.

In the second stage the chain and hooks pass through an overflowing hot water rinse (180° F.). After passing through the hot water rinse both chain and hooks will dry within about three minutes. At this point, that is, within three minutes travel time, the chain passes through the automatic oiler, because naturally the washer removes oil as well as primer. The chain-and-hook washer is located between the unloading and loading stations.—*E.C.A.*

T. N. Armel Is Made N.I.S.M. of The Glidden Company

Appointment of Thomas N. Armel as National Industrial Sales Manager of the Glidden Company was announced last month by A. D. Duncan, vice president of the firm's Paint and Varnish Division.

In his important new position, Mr. Armel will have headquarters direction of the development of all Glidden's industrial and maintenance finishes sales throughout the country. Prior to his appointment, he was in Chicago, as a member of the sales force of the company's Nubian Industrial Division.

Mr. Armel joined the Glidden Company in 1940. He was in 1950 the winner of a tax-paid $1,000 company award for outstanding sales achievement. His performance of that year was judged the best in all aspects of selling, and the contestants were from all divisions of the company. Mr. Armel has made outstanding contributions in the technical development of industrial finishing systems.

He is a 1939 graduate of the University of Notre Dame with a B.S. degree in chemistry.

Automatic Electric Spray-Bake Coating Machine

Pays For Itself In Regular Production Within 3 To 6 Months

Here is a self-contained unit that cuts coating costs, boosts output and improves quality of finish. Many machines have been in satisfactory production operation for several years. List of prominent and satisfied users available on request.

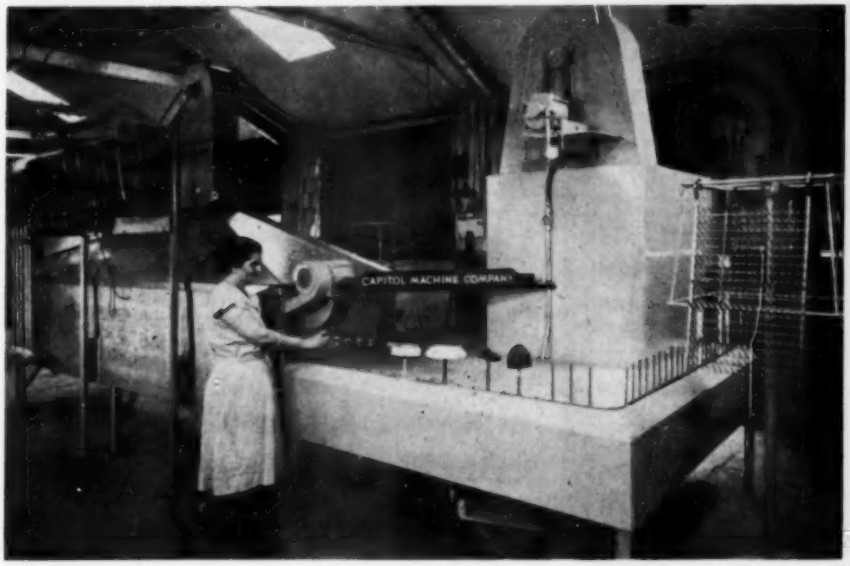
It will accommodate pieces of from less than 1-in. diam. to over 12-in. diam., which require a high quality finish, such as shell noses, cartridges, weapon parts; also clocks, pens, pencils, door knobs, etc. Positioned on work holders, pieces are automatically sprayed, travel on through a drying chamber for solvent evaporation, and then into electrical strip-heated bake oven from which they emerge for a brief cooling period before being removed.

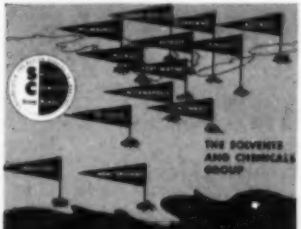
Recommended for speedy, high quality production, and exceptional savings in coating pieces of various sizes and shapes that are difficult to handle.

Let us make a test run of your own work samples—for time study and cost analysis—no obligation.

THE CAPITOL MACHINE CO.
DANBURY, CONN. **Tele. Danbury 3-2758**

View of booth showing automatic spray guns — lower view shows conveyor arrangement and drying and baking compartments.





to serve you better in

13 VITAL MARKETS

For prompt, personal service, contact your nearby member of the Solvents and Chemicals Group. Most solvents you require are readily available from local stocks in drum, tank wagon, transport or tank cars. Whether it's a solvent for coatings, or for inks . . . or a solvent for cleaning, you get the right product from your Group member.

THE SOLVENTS AND CHEMICALS GROUP

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SOURCES OF SUPPLY . . .

Speedy Service plus Personal Attention

One of a fleet of 5,000 gallon transports—this one from Chicago's Central Solvents

Personal attention is the one thing that customers value most. Unfortunately, a rapid growth in size usually reduces the amount of personal attention available. This needn't be the case, as illustrated by the 11 members of the Solvents & Chemicals Group. The Group delivering millions of gallons of solvents and tons of chemicals to industry throughout the Midwest has licked the bugaboo of big company immobility

The ability to move quickly, to meet each situation is provided for by permitting each member to operate as an individual company Yet, because of the tremendous distribution facilities available in key markets serving paint, metal working, graphic arts and chemical compounding industries, many leading chemical producers have chosen the Group to represent them.

SPEEDY DELIVERY. One factor that most firms appreciate is the promptness in shipping which all members of the Group offer. In most cases, orders are delivered within a 24-hour period. In cases where a product is not available locally shipments frequently can be rushed from the nearest Group member having adequate supplies. Thus, local shortages can often be overcome in cases of emergency.

WIDE RANGE OF PRODUCT. The basic concept in the Group's organization has been to provide a complete line of products in its field. Among the many products available, Group members offer 9 chlorinated solvents in various grades, 14 aliphatic petroleum naphthas, 10 aromatic solvents and 20

Laboratory facilities like this at Indianapolis' Hoosier Solvents are used to assist with customers' problems as well as maintain quality control.

Stake trucks and tank wagons (like these from Buffalo Solvents) provide speedy delivery of drum and bulk solvent promptly pick up drums.

Orders delivered within 24 hours in most cases from stocks as those at Milwaukee's Wisconsin Solvents.

Like other members, Cleveland's Ohio Solvents offers a catalog system listing properties on all products marketed.

different plasticizers. Because of this wide range of product, Group members can select and suggest the specific product that will best meet the customer's need. Whether it's a solvent for coatings, or for inks or a solvent for cleaning, you get the right product from your Group member

QUALITY CONTROL. Keeping abreast of new products and meeting customer problems has developed a unique set of facilities for the Group. Laboratory facilities are available not only to check incoming products but to offer technical assistance on solvents and chemicals on request. Laboratory assistance right in the market helps many salesmen whose companies are Solvents & Chemicals Group customers.

SUPER SERVICE. The specialized attention given by the Group has resulted in a constantly increasing demand by industry. For the complete story of what the Group has to offer your firm, readers are invited to call or write their nearby Group member.

FOR BETTER SERVICE

CALL ON THE SOLVENTS & CHEMICAL GROUP

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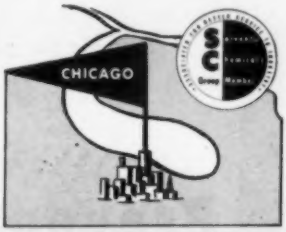

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CENTRAL

SOLVENTS & CHEMICALS COMPANY

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In Chicago, it's Central Solvents for speedy service . . . specialized attention. For over 26 years, Central Solvents has provided the Chicago area with solvents and chemicals from America's leading manufacturers. Whether you manufacture

paints, lacquers, adhesives or chemical specialties . . . whether you use solvents for metal cleaning, thinning inks or for reducing organic coatings . . . whatever the application, Central Solvents will suggest a product most likely to meet your needs. If you are in the Chicago area, call or write Central Solvents the next time you order.

CENTRAL

Solvents & Chemicals Company
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CHICAGO 12, ILLINOIS
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Your recent Random Comment prompted this article. I hope that it will be of sufficient interest to you to merit acceptance for publication.—

Charles D. Townsend

Preventive Maintenance

BY CHARLES D. TOWNSEND
Industrial Engineer

MUST WE HAVE preventive maintenance? The question of whether or not preventive maintenance is necessary keeps coming up in various companies and in most industries. Each time the answer should be "yes," but unfortunately many times the answer becomes "our program is good enough".

What is your program? Is it one where you let your equipment continue in operation until something breaks down or until it gets in such bad condition that rejected products become excessive? If this is your present program then you may well expect many problems within the next few years.

Our machine tool industry is swamped with orders. Your replacement machines or equipment may be in this mass of orders. When will your order come up? When will delivery be made? Production must go on in your plant with your present equipment until new facilities can be obtained. Why not now establish a program that will stop, or at least slow down, your increasing cost of maintenance and your factory's decreasing productivity?

A recent editorial under "Random Comment," which appeared in the January 1952 issue of *Industrial Finishing*, aptly states: "If a fraction of the money spent on these activities were put into a good preventive maintenance program for similar equipment now in the plant, gains in productivity might rival the work that could be done by a new piece of equipment".

Yes indeed, if a fraction of the cost of telephone calls, telegrams, interrupted production, and the like were applied to preventive maintenance, the program would soon be self-liquidating. For this same expenditure the most elaborate preventive maintenance system could be established. However, this would be no more effective than a lower cost method of accomplishing the same objective.

What do we need to establish such a program? First let's agree on what preventive maintenance is.

(Continued on page 38)

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Small Laboratory or Industrial Ovens built to finish-bake film surfaces such as enamels, lacquers, japans and other finishes, as well as pre-heating, aging, drying and curing. Adaptable to mass production methods—these ovens are rugged, well built for continuous, trouble-free operation.

Chemical Laboratories find them ideal for testing and to determine time and temperature cycles. Vertical forced (high volume) air circulation reduces baking time and assures uniform temperatures throughout baking chamber.

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The definition given in the Preventive Maintenance Manual published by Professional Expediting Service of West Hartford, Connecicut, seems to clearly state the case.

"Most people know what maintenance is, but the combination of the two words often causes confusion. Preventive means the prevention of, the warding off, or hindrance. Combine this word with the word 'maintenance' and it means the reduction of the maintenance required; the slowing down of the frequency of the maintenance of machines, buildings and all types of equipment.

"Preventive maintenance, therefore, stands for a lowering of the costs of keeping factory equipment in operation. It stands for the higher productive capacity of equipment. It helps to prevent the critical breakdowns which so frequently interrupt production and add many dollars to the cost of manufacturing the product.

"Preventive maintenance is a dollar saver; it is an insurance policy; prevents equipment from going to pieces before it should; saves the cost of expensive repairs to buildings; cuts off that enemy of all all business — deterioration — and keeps all vitally important phases of industry running smoothly". We might also add that old saying, "A stitch in time saves nine".

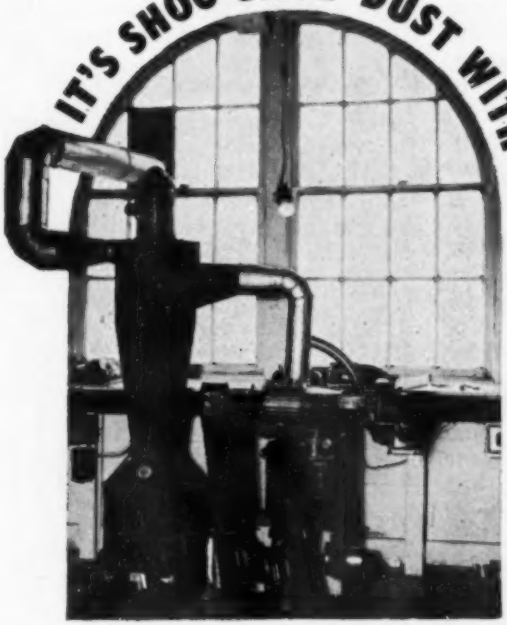
Certain structural parts of any equipment seldom if ever wear out, become "fouled up" or get out of adjustment; other parts, usually operating parts, do. Almost invariably, someone becomes aware of it when part of a tool or machine or other equipment begins to function less efficiently. Where an alert preventive maintenance system is operating, this condition will be reported immediately and a cleaning, readjustment, repair or a replacement—which ever is indicated—will be made at the earliest possible moment.

This means that replacement parts will be available long before they are needed, and that some qualified individual will be always at hand to do whatever is necessary in the way of cleaning, readjusting, repairing or making a necessary replacement to put the equipment back into first class working condition. This "stitch in time . . ." can be the means of preventing accidents, damage, rejects and expensive delays. But this is just one phase of a program of preventive maintenance.

What You Do to Set up Such a Program

Now let us look at the cost of setting up a program. This is always the stumbling block with any change that is proposed in the usual routine. The present method (or lack of it), regardless of the cost of operation, usually isn't considered. However, the cost of installation of a new system is a hurdle that must be cleared.

Basic needs that are required to establish a preventive maintenance program will include such things as a suitable form for recording machine and building data, and file cabinets for filing these forms. Usually two forms are made for each machine or piece of equipment for cross reference filing on the equipment. File forms should not be



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Torit dust collecting equipment connected to individual or small groups of machines possesses many advantages. There is little or no idle running time. No maze of piping obscures lighting arrangements, and pipe line friction is practically eliminated. Neither is there any interference with production set ups.

Whether your dust problems are large or small it will pay you to take those problems to:

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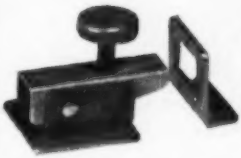
P. S. Also ask for the New Torit Catalog.



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The sturdy and efficient door fastener used on Torit cabinets is available for use on your own products. Strike plate either flat or angular. Write for quantity prices.

larger than 5½x8-in. nor smaller than 3x5-in., and on a light-weight bristol or card stock.

You will require personnel to set up and operate the master control. Usually, in establishing the system, if not more than 500 items are to be placed under the program, including motors and electrical equipment, one or two people can successfully develop and operate the controls that are necessary.

Each form must be completely filled in with data obtained from the various plant files and from actual examination of the piece of equipment or building to be covered by the program. The time involved in searching for data will depend upon the records of invoices and purchase orders maintained by your organization. Data from the shop depends upon the difficulty involved in reading name plates on various equipment.

What it's Going to Cost; Some Things to Consider

To summarize your basic costs:

1) Forms. You may use thin cardstock and, by using a mimeograph or its equivalent, it is possible to duplicate the form. Size of the form should be not over 5½x8-in. and the preferred size is 4x6-in. Two cards are required for each item to be controlled.

2) Card file for forms. Two index files are recommended—one for filing machines by name or classification, and the other to be used to set up a date file for maintenance review. If a closer cross reference is required, a third card file can be developed. Establish this file by machine number in numerical order.

3) Personnel. Probably not more than one or two people will be needed for a small preventive maintenance system. This might resolve itself to only one full-time employee after the program has been in operation for a short time.

4) Office equipment. Desk space for one or two people will be required. One calculator or adding machine should be available for use. At least one typewriter is needed, preferably with small-faced type.

"In our finishing room the air is filtered, circulated, and . . . ."

5) Miscellaneous. Odd supplies such as pencils, recording data, paper, ink and other usual miscellaneous office items will be necessary.

It can be seen that for a normal expenditure of cards, office equipment and files, a system could be started in a plant of 500 to 800 employees for about $2000 to $2500. Naturally to this cost would be add-

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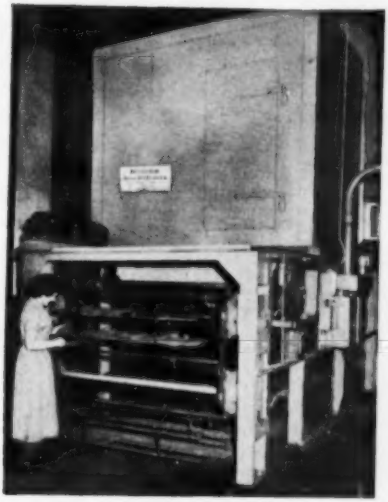

REQUIRES THE USE OF A

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Parts pass vertically through the elevated ROSS Baking Oven to the top, then turn around and descend to the leaving end of the oven shown in this photograph.

Just as for all elements of material and workmanship that go into Remington Rand typewriters and office machines, an unusually high standard of color control is demanded for their final finish.

Since, in the baking process which requires about 30 minutes, small variations in temperature affect the shade of the attractive crackle finish, close control of the temperature across the entire width of the baking enclosure had to be assured.

It is significant that the oven chosen to meet the exacting requirements was designed, built and installed by ROSS ENGINEERING. The maintained temperature is 300° ± 5°F.

Again a world famous line of products, made with the aid of ROSS equipment.

See Our Catalog In Sweet's M. I. File Or Write For Descriptive Bulletin.

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ROSS ENGINEERING OF CANADA, LIMITED, MONTREAL, CANADA • CARRIER-ROSS ENGINEERING COMPANY, LIMITED, LONDON, ENGLAND

ed the labor charge. However, many times, the labor is already available in the plant engineer's office or in the maintenance department, and no additional personnel need be hired. For such a small investment in any other phase of the business, where can the return on the money be so great?

Setting up the Program; What all to Include

How should the program be set up? It is certain that a planned approach must be made. Like any other venture, the effort made to establish a successful program is actually how efficient the program becomes. The Preventive Maintenance Manual outlines the basic requirements for such a program and advises:

"You must study your plant and its operations in regard to what items are vital to your production and overall profits . . . Your next step would be to see that all machinery and equipment are assigned numbers, either printed on the equipment, or metal tags bearing the number should be attached to the item . . . And don't forget those small hand machines or the electrical equipment when making your survey . . . Now develop the best record keeping method.

"Each plant has certain items that are common, but aside from that each plant differs and each company should develop the record system best adapted for its own use . . . your procedure . . . don't try to accept the plan without modification. If you don't want to expend the effort necessary to establish a sound preventive maintenance system, you will be much better off by obtaining outside aid to establish the program for you . . . After getting your equipment numbered, set down an accurate description of each item.

"Make sure that you have the manufacturer's name, the size, model number, type of drive, motor number, and so on from the machine and, above all, set down the common classification, such as infrared oven. When you have listed all of your machines, spray booths, ovens, etc., then start on your motors. In this case obtain the location, type frame, serial number, manufacturer, horsepower, voltage, amperes, speed, and type of controller."

Information That You Put on File Cards

After collecting this type of data you are now ready to set up the control cards. A few items that must always be included in your form are:

1) Name of equipment.
2) Location.
3) Machine number.
4) Serial number.
5) Manufacturer.
6) Horsepower rating.
7) Type of drive.
8) Voltage.
9) Speed.
10) Capacity.
11) Description of equipment.

Why use the record at all? Such records are the heart of your control system. From these records you establish your actual preventive maintenance schedule. Having set up your master records you can have the task now of establishing

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467 Broad Avenue

RIDGEFIELD, N. J.

the proper scheduling system for preventive maintenance. Study the usage of each piece of equipment. Preventive maintenance depends upon the operating frequency.

Cost of Maintenance is Reduced; Output Increased

Certainly it can be shown that a preventive maintenance program can be economically set up and operated. In fact, most companies using preventive maintenance have found that the cost of actual maintenance of equipment has dropped. This cost is not only the cost of replacement parts but also a reduction in maintenance personnel. Furthermore, along with this reduction in maintenance cost, the output of the plant has increased. Therefore, for the small investment two profits are taken—one on maintenance cost reduction, the other on increased productivity of the equipment.

With new equipment becoming less readily available and older equipment constantly going to the scrap pile we must conserve our productive machines. The effectiveness of our preventive maintenance programs will enable our industrial concerns to maintain high production in these trying times of shortages of new equipment.

Finishing Courses Offered at New York University

New York University, 3 Washington Square, New York 3, N.Y., has two courses in finishing going for the Spring term, Feb. 6 to May 21.

One course for beginners consists of fundamentals of paint, varnish and lacquer technology.

The other, for more advanced students and those experienced in the finishing field is a seminar in which new developments in organic finishes are studied.

Hot Spray Application

THERE are on the market good units for heating paint materials and holding the paint at a given temperature while it is being applied. I have in mind units such as those advertised in this magazine. Beyond the heating of the paint, and safety, there is nothing special.

We know that for standard spray application it is necessary to reduce the viscosity, or thin the paint with solvents, to permit the compressed air leaving the nozzle of the spray gun to finely atomize the paint.

When solvents from a paint coating have evaporated, a thin film of paint remains. For some applications this thin film (one coat) is not heavy enough to offer complete hiding power or to withstand the wear the product will receive; so the surfaces are given a second or third coat.

The object of heating lacquer or any other paint material just before and while it is being sprayed is to reduce its viscosity or, thin it with heat instead of adding solvents, so that one coat of hot material will equal two coats of material thinned with solvents. If the material is reduced to 25 seconds (as measured in standard viscosity cup) with solvents to obtain perfect atomization and with a minimum of orange peel, you will have exactly the same results from your spray equipment if the same material is reduced to 25 seconds with heat instead of solvents. Material is the same, viscosity is the same; material and atom-

A NEW
AIR-POWERED
DETROIT *Easy* FINISHER

The new Model AF, a fitting companion to the Easy *Electric* Finisher line—a full size, single pad, production air sander! Its genuine *reciprocating* action (*not* orbital) produces the perfect finish without hand clean-up of swirls, etchings or other objectionable abrasive scratches. A water connection for wet work, pads for flat or curved work, make the new Easy Model AF ideal to do your job better . . .

- **STRATE-LINE ACTION** works up to right angles, no abrasive scratches, no hand clean-up.
- **SINGLE PAD,** full size, proven most convenient, uses ⅓ standard sheet sandpaper, 3⅔" x 9"
- **COMFORTABLE GRIP,** feather-touch palm-pressure start-stop control; front knob for extra convenience.
- **LIGHT WEIGHT**—under 6 pounds —but **full sized,** not a miniature.
- **SMOOTH,** vibrationless mechanism for efficiency and ease of operation.
- **ALL-NEW QUICK GRIP** abrasive holder for instant attaching of up to 12 abrasive sheets.
- **PADS OF FELT,** rubber or composition for all sanding, rubbing and polishing jobs.

Write for latest literature and name of your nearest Easy dealer.

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SAVE TIME MANPOWER with CIRCO VAPOR DEGREASERS

You can save *dollars* on your cleaning operations by installing CIRCO Vapor Degreaser in your production line. With its use metal parts cleaning is speeded up and made more efficient. Grease, oil and dirt are quickly and effectively removed from the parts by the vapors of the solvent. Chips, insoluble impurities, buffing compounds and stubborn dirt are completely removed with clean solvent flushing. Maintenance and operation costs are at a minimum. Solvent is distilled and reclaimed *automatically*.

WRITE FOR — *complete catalog*
Use PER-SOLV or CIRCO-SOLV
for all Vapor Degreasing requirements

CIRCO VAPOR DEGREASERS available in all types, vapor, vapor-immersion, vapor-spray and combinations. All sizes from small batch-type degreasers to custom-built monorail or cross-rod conveyor models.

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MATAWAN, NEW JERSEY • OFFICES IN PRINCIPAL CITIES
MANUFACTURERS OF VAPOR DEGREASERS AND METAL PARTS CLEANING EQUIPMENT

izing pressures are not changed. You have the same spray conditions existing with heat as when material is thinned with solvents. The only difference you have is the thickness of two coats in one application.

This means that it is not necessary or advisable to change the type of spray gun or nozzles that you are now using. The change that must be watched or taken into consideration is this: *Heated paint must be held at a constant temperature at all times and must not be allowed to cool off in the hose.* This makes it necessary to have your heat unit equipped with a circulating pump and your spray gun must be fitted with a circulating connection. Temperature of the hot paint must not exceed the boiling point of the original solvents in the paint, or gas pockets will appear and cause a spitting action at the gun.

Check the amount of material passing through your paint heater to find out what quantity can be held at a constant temperature. Then request, from your spray equipment manufacturer, a chart that shows how many ounces of paint per minute passes through the material nozzle at given pressures. For example, if your heater will pass seven gallons per hour at a given temperature, and the material nozzle passes 17 ounces per minute at 5-lbs. pressure, you will be trying to pass almost one gallon of paint per hour more than the heater was built to hold at a constant temperature. This condition is likely to produce different finishes on different parts of the product being painted.

Do not start painting in the morning until your lacquer or paint reaches its maximum temperature—and be sure to circulate solvents through the heater at night during its cooling off period.—*William Beacham.*

Keep Floor Dry Around Power Washer

DO YOU have a problem of water dripping off parts as they leave the power washer? It is possible to eliminate most of this mild chromic acid and water dripping from parts by installing an adequate air curtain just inside the exit of the washer. In the event space will not permit this down-draft air curtain, perhaps a 12 to 24-in. extension could be added to the washer. Air currents will remove most of the excess water and keep the concrete floor reasonably dry in back of the power washer.—*A.B.C.*

John P. Emmett Heads New Products Dept. of Detrex

The creation of a new products department, to be headed by John P. Emmett, is announced by Detrex Corp., Detroit 32, Mich.

The urgent need for the formation of such a department has resulted from the company's extensive research program and increased activity in new product development. Recent new product and process developments have come from the industrial, food processing and dry-cleaning divisions. New uses for existing products and problems of foreign trade will be some of the responsibilities of this department.

During the six years Mr. Emmett has been with Detrex he has gained broad experience in sales and service of the company's industrial cleaning equipment and chemicals.

Wilkinson E. & S. Distributes Detroit Surfacing Sanders

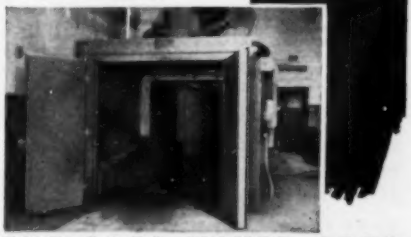
The Wilkinson Equipment & Supply Corp., 6958 S. Wentworth Ave., Chicago 21, Ill., has become a new distributor for Detroit Surfacing Machine Co.'s air-driven and electric portable sanders. Expanded sales plans are in the making.

CARL-MAYER OVENS

Carl-Mayer exclusive design and patented features ensure the most efficient operation and outstanding fuel economy. Many installations.

Write for Bulletin No. 350

Enamel Drying, Japanning, Lacquering, Ceramic Drying



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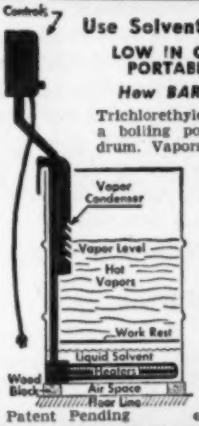
MOST REVOLUTIONARY DEGREASER DEVELOPED!
BAR-L* Vapor DEGREASER



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LOW IN COST—ECONOMICAL PORTABLE and PRACTICAL

How BAR-L Degreaser Works

Trichlorethylene solvent is heated to a boiling point in lower section of drum. Vapors condense on work and wash off oil, grease and dirt. Most parts can be cleaned in seconds! Solvent vapors are kept inside the drum by a scientifically-designed condenser which returns solvent to boiling chamber.

REMEMBER: Anything that can fit into a solvent drum can be cleaned in a BAR-L Degreaser! And it's priced right!

* Patent Pending

Write for details on other "MP" Degreasers.

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Finishing Room Troubles?

WHY? WHERE? WHEN? HOW?

BY TROUBLE SHOOTER

Some causes and remedies for finishing room troubles, as seen and experienced by a material manufacturer's serviceman.

DOES YOUR paint shop give you headaches and cost you money in lost production? Are you one of that small group of industrial paint users who are always having trouble, one problem after another, week after week, always something new and different, with just enough hint of repetition to make you wonder what the hell? Do these troubles often disappear of their own accord before you, or the paint supplier's serviceman, can really nail down the cause?

Almost every industrial paint salesman and serviceman has a Stubborn John in his family of customers. He can easily identify an S. J. because the symptoms of persistent paint shop troubles show up within two weeks after the first drum of material is opened. The most discouraging part of it, to the serviceman, is that usually only an Act of God can effect a remedy.

Look! Is it Someone's Bullheadedness?

You see, Stubborn John doesn't see himself as others see him; he doesn't realize his own bullheadedness. He believes that his problems and troubles are caused by the paint, when too many times his own personnel and methods are at fault. Usually, he won't give simple remedies a fair trial. Instead, he rants and raves at the salesman.

Where do you find these Stubborn Johns? Almost everywhere. One that I know of is a young, rapidly growing company, making promotions from within the organization. Another, in the same city, is creaking with age; has been painting the same type of product year after year, and boasts of the loyalty of the paint foreman who has been with them for ten times umpteen years (and hasn't learned anything new in the last twenty). Still another, reformed now, had a Guardian of the Payroll who couldn't, or wouldn't, understand how an extra man "out there" would earn his pay.

Ah! the pattern appears. The paint department is known as a "necessary evil", but the Stubborn

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SEALERS

— (two types) — one that sands readily in a half hour. It's tough — time saving — satisfactory. The other — is of highest quality — has maximum toughness — holds out the finish, but cannot be sanded for an hour. They are adapted to your preference — your production methods.

Rely on The GILBERT SPRUANCE COMPANY quality for high grade durable finish . . . lasting beauty.

Our research and technical staffs are at your disposal.

INQUIRIES INVITED.

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PHILADELPHIA 34, PA. • WINSTON-SALEM, N. C.

Johns spell it with capital letters —EVIL—and act accordingly. It's an attitude and it smells. One whiff and you always recognize it again.

Balanced Judgment Plus Practical Experience

"By their acts ye shall know them". For example, they will spend thousands of dollars building fabulous ovens and spray booths, but refuse an additional $200 for a shed for winter paint storage where the frost can be melted from the drums before using their contents. Agitation and thinning of paint is serious business, but because some of these shops lack that extra man, they have learned more short cuts than a gray squirrel in a hickory woods, and who is to say which vital step they missed and got themselves in trouble? "We did it just as you told us", the paint man said. Did you hear the "I hope" he mumbled half to himself later?

Infra-red lamps burn out, and are replaced blindfolded. "Wattage? What's the difference? It's a lamp isn't it?" And then, in all seriousness, they will blame the paint for the too soft finish. How many times have you said, "The paint isn't flexible enough for our equipment. It is too sensitive to a variation of baking temperature".

"Who suggested training for the spray hand? Don't be silly. He doesn't need it. He had been spraying for years." Or even worse, in another shop, "We can't take time out from production; some other day when we are not so busy". Meanwhile the sags and rejects continue. Who do you blame for the sags in your plant?

Serviceman's Nightmare .... Non-Cooperative People

These are only samples. I could go on all night. Sad isn't it? Sadder still, all the quotes above are actual quotes of foremen and superintendents. Saddest of all, most corrective measures are desperation measures, and are only temporary. Soon after the serviceman leaves, that extra man is needed back on his old job; 250-watt lamps are back in the oven; or the boys in the mixing room have found an even more dangerous short-cut. Next time the serviceman is needed, the trouble is new and different, but it is a delusion that the Stubborn John has learned his lesson. The tip-off comes when he says, "Not as bad as yesterday." Does that sound familiar? Have you said that recently?

Must you wait for an Act of God? Sometimes Acts of God are drastic, painful and permanent. So why wait? If you are a Stubborn John, and do not like your paint troubles (and who does), why not listen to the trouble shooter? He knows you and others like you and, believe me, he can save you money "out there".

It's not always the paint; it's the way you use it.

N. W. Ohio Industrial Council Makes R. L. Morrison President

Ray L. Morrison, executive vice president of the DeVilbiss Co., has been elected president of the Northwestern Ohio Industrial Council. He succeeds Jules D. Lippmann, president of the Textileather Corp., who was the Council's first president.

The Northwestern Industrial Council was organized in 1950 to provide a fact finding and evaluating organization for diversified industries of the Toledo area.

Simuplate FOR GOLD, BRASS AND BRONZE COATINGS

With shortages and restrictions on metals, you can keep your production line moving with SIMUPLATE — a practical new organic coating. When applied over properly prepared surfaces it develops the bright lustre of either polished gold, brass or bronze. It's passed many exhaustive tests for wearability under all types of conditions.

Let us tell you more about SIMUPLATE and show you how easily you can get striking effects with combinations of SIMUPLATE finishes. Write or call today.

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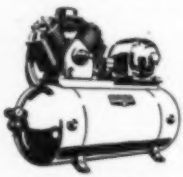
Take your problems to DeVilbiss

Many firms rely on DeVilbiss as their source of finishing know-how. They find in DeVilbiss technical service and quality products opportunities to improve both their product and processes at reasonable cost.

Extensive laboratory facilities, like this electrostatic set-up, are at your disposal in the DeVilbiss Research Department to put your problem to actual test.



Air Compressors

Hose and Connections

Spray Guns

LET DEVILBISS HELP YOU SELECT THE PROPER SPRAY METHOD FOR YOUR JOB

Electrostatic, manual, automatic, steam or hot material—our broad experience covers *all* spray-finishing methods in every industry and under many and varied conditions.

The proper spray method may mean the difference between profit and loss in your finishing department.

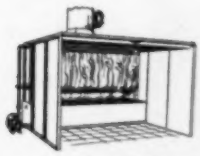
We know you'll find DeVilbiss ideally equipped to help you. We have extensive research facilities, a skilled technical staff, over 63 years' spray-painting experience, and no prejudices regarding one spray method over another.

If you would like expert advice on new finishing problems, or if you believe present facilities can be improved, phone our nearest branch office or write us. We welcome the opportunity to serve you.

THE DEVILBISS COMPANY, Toledo, Ohio

Windsor, Ontario • London, England • Santa Clara, Calif.

Branch Offices in Principal Cities



Spray Booths

FOR BETTER SERVICE, BUY

DEVILBISS

Glidden Makes Wm. B. Stone Midwest Sales Manager

The Glidden Co. announces the appointment of William B. Stone as sales manager of the Midwest Trade Sales Region at Chicago. He will be in charge of the paint and varnish division.

Mr. Stone joined the credit department of the Glidden Co. in 1933. He was appointed to trade sales the following year and continued in that assignment until his present appointment, with the exception of two years military service.

He succeeds Paul C. Brockman who was recently appointed regional director of the Midwest trade sales region.

How Color Affects Size

THE COLOR Research Laboratory of Sun Chemical Corp. has made extensive studies to determine what causes colors to vary in size and distance from the human eye.

Because the focus of the eye is not the same for all colors, the hues of the spectrum appear near or far, large or small. Red, for example, focuses normally at a point behind the retina. To see clearly the lens of the eye grows convex, pulling the color nearer and thus giving it apparently larger size. Conversely, blue is focused normally at a point in front of the retina, causing the lens to flatten out and push the color back. That is why blue is sometimes referred to as receding color, and red as an advancing color.

Red, orange, and yellow usually form a sharp and clear image on the retina, even through distance and haze, while blue and violet tend to appear blurred. Yellow is apparently the largest color, then next in order are white, red, green, blue, with black the smallest of all colors.

A bright image

Nacromer
A PEARLY PIGMENT
Perfect substitute for Pearl Essence—Nacromer supplies a fine brilliance at lower cost. It is stable, inert, non-corrosive, and provides a long-lasting finish to products made of wood, metal, plastic, glass, paper, cloth or leather. Test the possibilities on your product —send for a generous working sample and descriptive literature.
THE MEARL CORPORATION
153 Waverly Place New York 3, N. Y.
"World's Largest Producer of Pearl Essence"

also tends to spread out over the retina, just as a drop of water spreads over a blotter. Thus, bright colors appear large, and warm colors appear near.

These phenomena have practical application in posters, packages and product finishing. Bigness is to be accentuated through the use of light warm colors.

Elements of design meant to stand out prominently should be red, orange and yellow, and preferably to be set off against a green, blue or purple background of low value.

Detrex Extrudite Process At 1952 ASTE Exposition

A working demonstration for Extrudite, the phosphate compound used in cold-forming and drawing of steel, will be presented at the 1952 ASTE Industrial Exposition, by the Detrex Corp., Detroit 32, Mich. This process produces the tough lubricating film necessary throughout an extrusion or deep drawing operation.

J. M. Thomas, Sales Mgr. for a Jones-Dabney Division

Mr. J. C. Knochel, Vice President of the Resins & Chemical Division of Jones-Dabney Company, a division of Devoe & Raynolds Co., announces the appointment of Mr. J. M. Thomas as Sales Manager of that division.

A graduate of DePauw University, Mr. Thomas has been associated with the Jones-Dabney Company for the past 15 years. Originally employed as a laboratory assistant in the enamel production department, he was soon thereafter placed in charge of the varnish development laboratory. In 1945 he became Technical Director of the Resins & Chemical Division, and four years later was appointed Assistant Sales Manager.

He is a member of the American Chemical Society, the American Society for Testing Materials (A.S.T.M.) and is also active in the affairs of the Louisville Paint Production Club and the Louisville Paint, Varnish and Lacquer Association.

A Quick, Smooth, Uniform coating—assured by

BARRETT GALVANIZING AND HOT TINNING CENTRIFUGALS

BARRETT CENTRIFUGAL GALVANIZER is driven with high torque head and has an equalized disc brake for quick stop.

With the Barrett Whizo Galvanizer, excess metal is quickly removed from small parts after dipping in molten metal, in fact, much faster and more uniform production is assured. Parts will also pass the most rigid inspection for quality.

The method of handling is simple and easy. Work to be coated is placed in a round basket and submerged in molten metal. When thoroughly heated, the basket is placed in the Barrett Centrifugal to be immediately accelerated to high speed, the excess metal being thrown off before it can cool.

A quick pick up and stop (from 2 to 3 seconds each) assures maximum production with an even thickness of coating.

Machines furnished with or without heated surrounding drum, in capacities from 40 to 240 loads per hour, handling from 5 to 100 lb. loads. When used for tinning threaded work, rethreading has been found to be unnecessary.

Barrett Centrifugals are used extensively, combine speed with convenience of operation and the utmost in safety. They are highly developed to meet all reasonable requirements, have self-contained motor drive and occupy a minimum of floor space.

Send at once for full details of Barrett Centrifugal Galvanizer

THE LEON J. BARRETT COMPANY

Designers and Builders of Centrifugal Machinery

1703 GRAFTON ROAD WORCESTER 1, MASS.

Hot Lacquer Painting

Below: Careful cleaning, spot-priming and masking precede application of the final, hot-sprayed lacquer. Here the bus bodies are made ready.

THIS ARTICLE takes up some features of the painting facilities at Twin Coach Co., Kent, Ohio, where Army "convertible" coaches are being completed. The term "convertible", as used here, applies to buses or motor coaches manufactured for the military. These coaches can be converted from ordinary passenger use to first-aid service, litter carriers or trucking jobs.

The end product resembles an ordinary motor coach except for the easily recognized Army olive drab color. Interiors are finished in different shades of green and, of course, all paints used are prepared according to Army specifications.

Several unique aspects are associated with this hot lacquering of "convertibles" but, for the record, perhaps we should review the complete production picture quickly and let the special features of finishing come in their natural order of sequence.

The Twin Coach Co. is sub-contracting the partial fabrication and the complete final finishing of these

# of Army Convertibles

"convertibles". The bodies come to the plant from an Ohio factory of Fruehauf Trailer Co., in a partially completed condition.

Bodies From Fruehauf; Sub-Assemblies Added

Twin Coach takes these "convertible" bodies and adds considerable detail and several parts to them, including the engine, a number of metal components, inside and outside; and various small sub-assemblies. The coach, incidentally, is essentially of all-steel construction. As received at Twin Coach, the partially fabricated body has received a protective prime coat. Twin Coach, of course, must clean and prime all of the detail parts it manufactures and adds to each body before the finished "convertible" is ready for the hot-spray lacquering or final coat of paint.

Consistent readers of *Industrial Finishing* may recall that the finishing facilities of the Kent Ohio plant of Twin Coach Co. were reviewed extensively in September 1947 issue of this magazine by the same author, "Production Painting of New Motor Coaches." [*To p. 58*]

BY WALTER RUDOLPH

Hot spraying of a coach under way in painting room. The space is lighted and ventilated, and has adjustable metal wall brackets to support scaffolds which enable workmen to reach.

Here we will review briefly, injecting certain new methods and equipment into the picture.

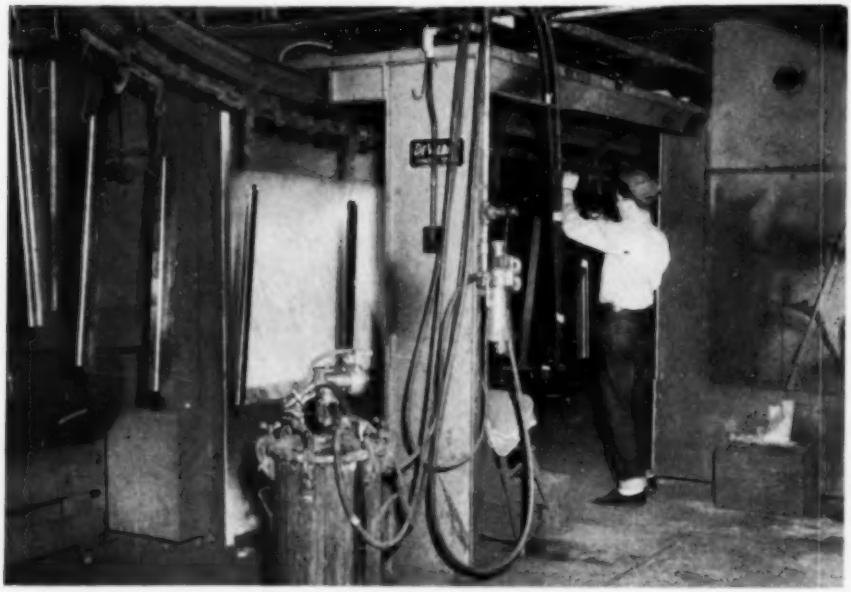
Conveyor Moves Parts Through Cleaning, Surface Preparation

Fabricated parts are loaded onto an overhead conveyor of some 500-ft. in length, for travel through a solution of phosphoric acid, a hot rinse and a drying oven at about 180° F. The new body parts are carried by conveyor through a wash primer spray booth. The operation here is referred to as a standard "Army wash priming" (similar to a mist coat) to secure better adhesion of the follow-up priming coat which is an Army specified red oxide; the latter is sprayed on in a booth which is some 50-ft. from the wash priming application.

The conveyor moves about 10-ft. a minute, finally entering and passing through the 16-ft. infra-red overhead oven. Some 100-ft. farther along the parts are brought down to floor level, unloaded and stocked for sub-assembly use.

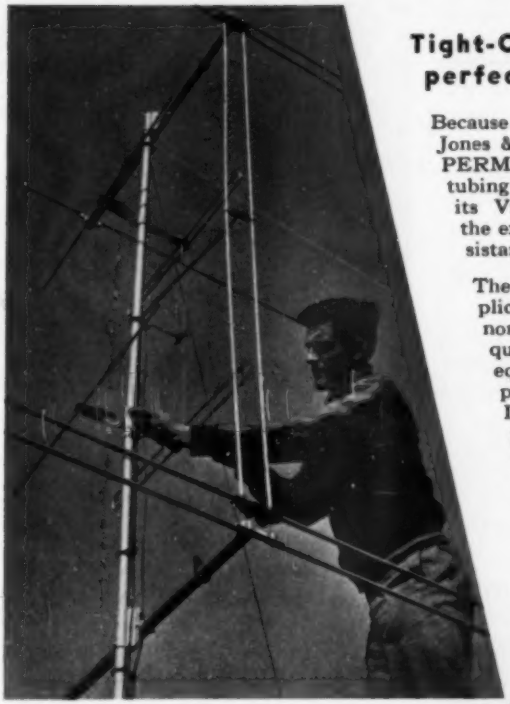
When a coach body is completely assembled, the cleaners, spot primers, caulkers or sealers, and maskers swarm over it. These men all perform manual operations that require skill and attention to detail, as mentioned in the previous article on coach painting. Of particular interest, perhaps, are the metal masks that fit into aperatures, such as coach windows, exterior lights.

(Continued on page 60)



New spray booths were added to a 500-ft. conveyorized priming setup, to take care of the special Army painting requirements. Here, "wash primer" is applied before oxide primer.

TELEVISION TUBING PROTECTED FROM CORROSION WITH VINSYNITE-VINYL SYSTEM



Tight-Clinging Vinsynite forms perfect base for finish coat

Because of its strength and rigidity, Jones & Laughlin Steel Corporation's PERMA-TUBE has many mechanical tubing applications, and because of its Vinsynite-Vinyl coating, it has the extra advantages of corrosion resistance and attractive appearance.

The Vinsynite-Vinyl system is applicable to any metal. It is economical to apply because it requires no expensive pretreating equipment; it can be applied like paint by brush, spray or dip. Its corrosion resistance has been proven by ASTM tests (no corrosion after 864-hour salt spray test) and by on-the-job performance.

We'd like you to have a copy of our report on Vinsynite's corrosion resistance under varying exposure conditions. Why not write for your copy today.

Coating Unaffected by Deformation

Test specimen of PERMA-TUBE deformed by compression. Under this severe distortion, surface adherence was remarkably good, and the Thompson Vinyl coating was unaffected.

Both Vinsynite pre-treatment and the aluminum-pigmented Vinyl finish coat are applied by dipping so that tubing is coated inside and out. The finish coat is baked after dipping.

SPECIALTY COATINGS, INC.
DIVISION OF THOMPSON & COMPANY
1086 Vincent Avenue, Oakmont, Pennsylvania

Closed Painting Rooms; Hot Spraying Setup

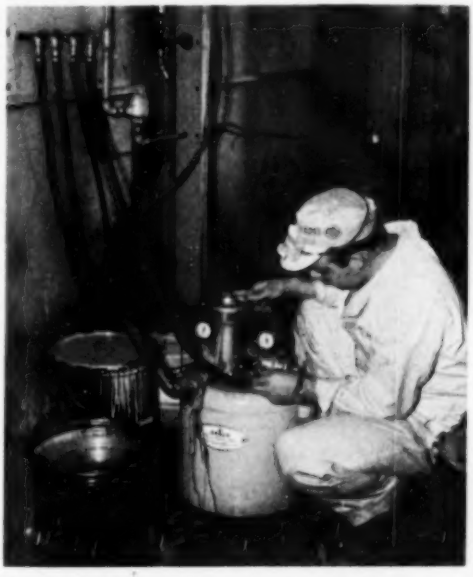
From here on, the simplicity, economy and time-saving aspects of the hot-spray lacquering procedure become evident. Two identical paint rooms—one each on identical hot spray painting production lines—are in service for the final finishing of coaches. Each room is 16-ft. wide, 16-ft. high and 45-ft. long. The body is carefully wiped with tack rags just before application of the hot lacquer. In order to reach all parts of the body the sprayers work on scaffolding positioned on both sides of the body, and extending from one end to the other.

A good look at the sprayers will immediately make evident some differences between hot-spraying and cold spraying . . . .

With the use of a new heating element, leased from the manufacturer, the hot-spray process can be accomplished with hose extending as far as 30-ft. to 50-ft. from the paint container and agitator. This heating element is held in the left hand while the spray gun is held and manipulated with the right hand. The heating element is insulated with an asbestos jacket. Through it—or rather into and out of it—runs the paint hose; then the heated material flows to the spray gun. As the heated material leaves the heating element its temperature ranges from 150° to 153° F.

With this application process, Twin Coach Co. uses only one coat of lacquer enamel to finish these "convertibles". The coating air dries in a short time; then each coach is ready for its final interior appointments, testing and shipment.

(Continued on page 62)



Along outside wall of paint room coating material is "put under agitation" and then pumped through hose lines to spray guns.

Small gas-fired boiler in which the steam is generated for heating the coating material.

HOT Lacquer NEWS

PUBLISHED PERIODICALLY BY HERCULES POWDER COMPANY IN THE INTERESTS OF BETTER FINISHES AND FINISHING

Hot-Spray Lacquer Up to 50% Faster For Military Equipment Finishing

Douglas Reports Savings in Time and Materials Since Adopting Hot-Spray Method

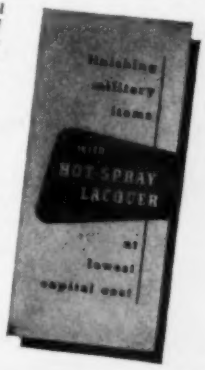
Thinning lacquer by heat instead of solvents represents the most economical means of securing a fully satisfactory and serviceable finish. Douglas Aircraft Company proves this dramatically on its Navy AD-4's — built by its El Segundo Division.

Here are some cold facts about hot lacquer — verified by Douglas — worth evaluating against your present method of finishing. Comparable savings in time and money on finishing military equipment such as tanks, bombs, shells and grenades can be realized simply by switching to hot-spray lacquer.

- Required film thickness can be applied by one hot coat where two cold cross coats are necessary.
- Application time is reduced 50% with a resultant increase in production.
- Finish is smoother and glossier.
- Sanding between coats is eliminated.
- Better flow-out decreases tendency to sag, blush or orange peel.
- Equivalent of two gallons of lacquer and eight gallons of thinner saved on each plane.

This AD-4, built by Douglas for the Navy, is one of hundreds on which hot-spray lacquer is used to cut finishing costs and time.

You'll want to read all about the broader uses of hot-spray lacquer as it applies to finishing defense items—and your own products. A new military specification for hot lacquer is now issued and official. Identified as "Military Specification MIL-L-11195 (ORD) Lacquer, Lustreless, Hot-Spray (For Ammunition)." Hercules will send you full information on hot lacquer, types of heating equipment available, and the performance record of hot lacquer in many industries. Send for it today.



HERCULES POWDER COMPANY
INCORPORATED

Cellulose Products Department

928 Market Street, Wilmington, Delaware

CL52-1

Plant officials point out such factors as elimination of thinning, a quick-drying one-coat job, with subsequent time and money-saving features.

As noted, the lacquer enamel comes to the plant, ready to be placed into containers from which it is pumped to the spray guns.

Steam for heating the paint material is generated by a small gas-fired boiler installed close to the spray painting rooms. This unit is set to generate about 20-lbs. of steam — enough for feeding four spray guns in the hot-spraying process.

DuPont Shifts Personnel

Dr. Jack B. Callaway has been appointed manager of West Coast sales for the pigments department of the DuPont Co. His headquarters are in Los Angeles. He succeeds Robert P. Enslin who died last year.

M. James McLain, formerly a pigment salesman at Cleveland for the central area, succeeds Dr. Callaway as sales promotion manager for dry colors in the Wilmington headquarters of the company. Leland F. Andrews succeeds Mr. McLain, with headquarters in Cincinnati.

Pecora Paint Co. Celebrates Its 90th Anniversary

The Pecora Paint Co., Inc., 4th St. & Sedgley Ave., Philadelphia, Pa., celebrated its 90th Anniversary with a Testimonial Dinner honoring Employees. The dinner was held on Tuesday, January 29 and all honored employees and their wives attended.

Gold engraved pins were presented to six of the personnel for service of ten or more years.

Gold engraved watches were presented to 12 others for service of 25 years or more.

M. & E. Holds Sales Conference at Indianapolis

"Continued assurance of top quality, fair prices, and prompt deliveries." This is what Rudy Egener, President of M & E Mfg. Co., told Midwest sales representatives of the company's complete line of spray finishing equipment when they met for a three-day sales meeting at the M & E Co. plant in Indianapolis, Indiana, late in January.

Mr. R. Egener and Mr. J. K. Stevenson, Sales Manager, conducted the meeting which served as an engineering refresher meeting for their representatives.

M & E's new improved water-wash spray booth, exhaust fans, and accessory items were discussed, and information on their user benefits were highlighted.

The meeting enabled the representatives to keep better informed of the advantages of their company's products for industrial users. (See illustration below).

Representatives of M & E Mfg. Co. attending sales meeting at company office in Indianapolis.

Take the headaches out of DEEP CONTOUR POLISHING

New BEHR-MANNING ABRASIVE BELT METHODS

turn these jobs into full speed, profitable production runs. It's all in the right combination of equipment, contact wheels, and fast-cutting, long-lasting BEHR-MANNING Abrasive Belts. BEHR-MANNING Engineers can put you on the right track with the combination that's right for your polishing job. They'll demonstrate the latest equipment in a conveniently located BEHR-MANNING Demonstration Room or in your own shop, if you prefer. Make a date now.

HOT OFF THE PRESS

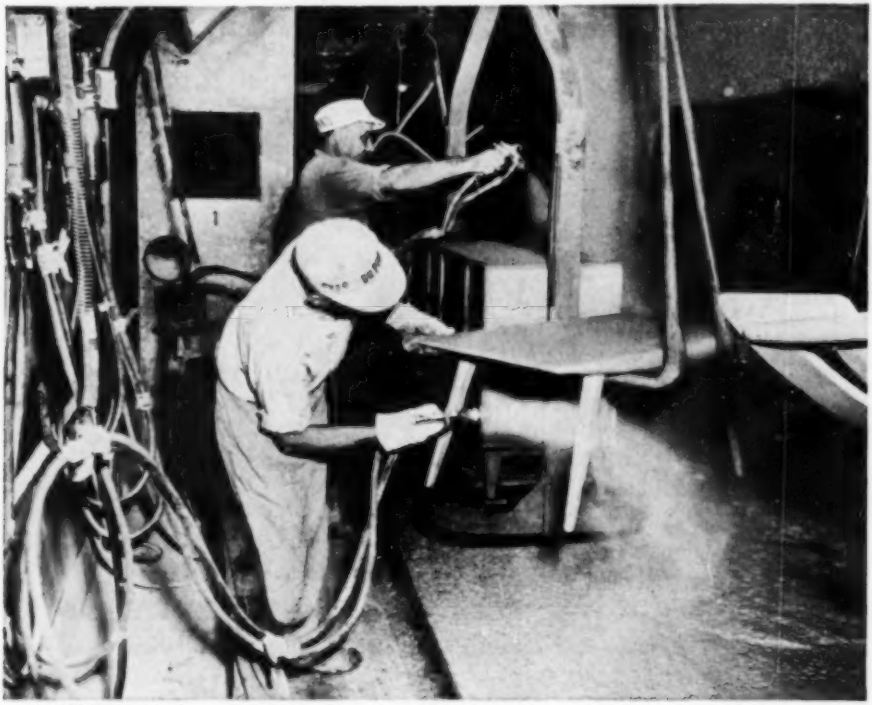
"Blueprints for Faster, Better Production" contains case histories of new contour polishing operations and other "out-of-the-ordinary" abrasive finishing jobs. Write Behr-Manning Corporation, Troy, N. Y. for your free copy today. Address Dept. IF-3.

BEHR-MANNING
CORPORATION

division of ***NORTON*** *Company*

▲ COATED ABRASIVES
▲ SHARPENING STONES
▲ PRESSURE-SENSITIVE TAPES

Main Office and Plant: Troy, N. Y.
For Export: Norton Behr-Manning Overseas, Inc.



PRODUCTION UP. With DULUX Furniture Finish, this two-man spray booth can coat over 1,000 pieces of furniture in a normal eight-hour day.

HOW BIG-VOLUME FURNITURE MANUFACTURERS . . .

Cut Top-Coat Costs 30% with Du Pont DULUX

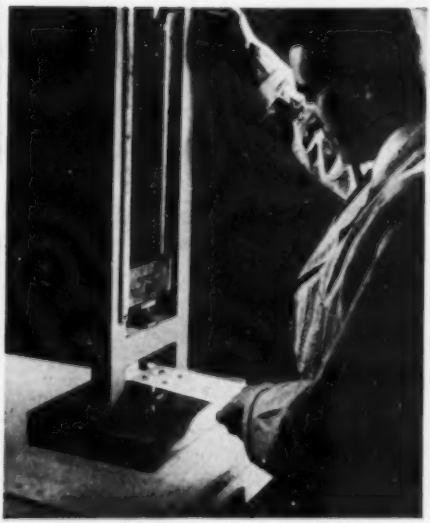
One coat of high-build DULUX does the job of two coats of ordinary finish. This can mean a 30% reduction in finish-coat costs, 50% reduction in application time.

When furniture manufacturers first heard about Du Pont DULUX, it sounded almost too good to be true. Because the new Du Pont finish required only one spray operation, top coating time could be cut 50% and top-coat costs as much as 30%!

In the decade since its development, DULUX Furniture Finish has helped sell millions of pieces of furniture at all price levels. Today, women know they can count on *any* furniture made by Du Pont to resist marring, scratching, discoloration and printing—to keep its rich, satiny sheen for years in the home.

Do *you* have a finishing problem? For help, contact the Du Pont sales technician in your area, or write E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington, Delaware.

DULUX goes outdoors, too. This DULUX-finished bicycle will stay bright for years.



DU PONT CHEMISTS measure flexibility and adhesion of a finish with this test device.

Du Pont Industrial Finishes

Serving industry with over 12,000 finish formulas, including specification finishes for defense work.

DULUX IS REG. U. S. PAT. OFF.

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . *THROUGH CHEMISTRY*

Flock Coating

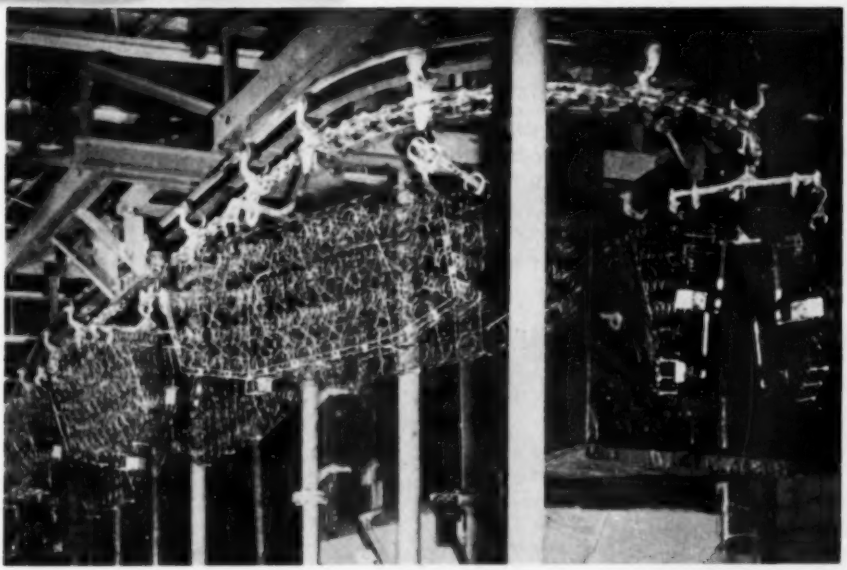
AUTO SEAT SPRINGS

Here the framed assemblies of coil springs inside automobile seats and backs are completely covered with flock which serves well as a preservative coating, muffled sound deadener and . . .

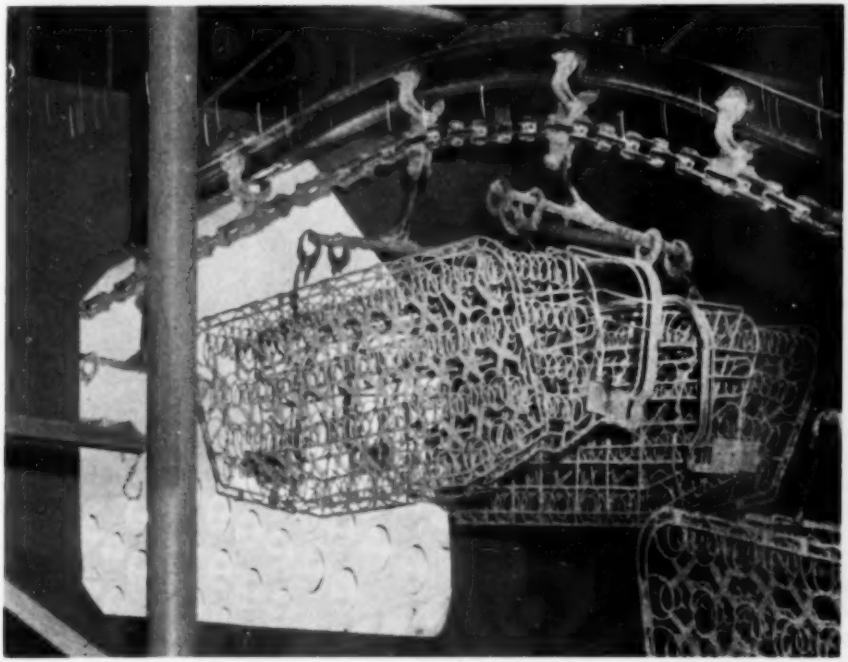
ONE OF THE many strictly utility uses for flock—where the flock coating isn't even visible in the finished product—is found in the automotive industry. In the plant of L. A. Young Spring & Wire Corporation, automobile seat and back assemblies, consisting of formed frames that hold parallel rows of upholstery coil springs, are completely coated with rayon flock.

The company's engineers developed an entirely new and better design in automobile cushion and back seating units. Basically, the revolutionary advance was made possible by discovering a combined method of stapling coil springs to hardboard, and stapling that portion of the assembly to steel tubing, then flock coating the entire unit, or the greatest portion of the unit.

A worthwhile saving in steel was made possible through a complete change in the coil spring construction itself; and burlap was eliminated entirely by successfully adapting the flocking process to the entire unit as a sound proofer and stabilizing agent. [*To page 68*]



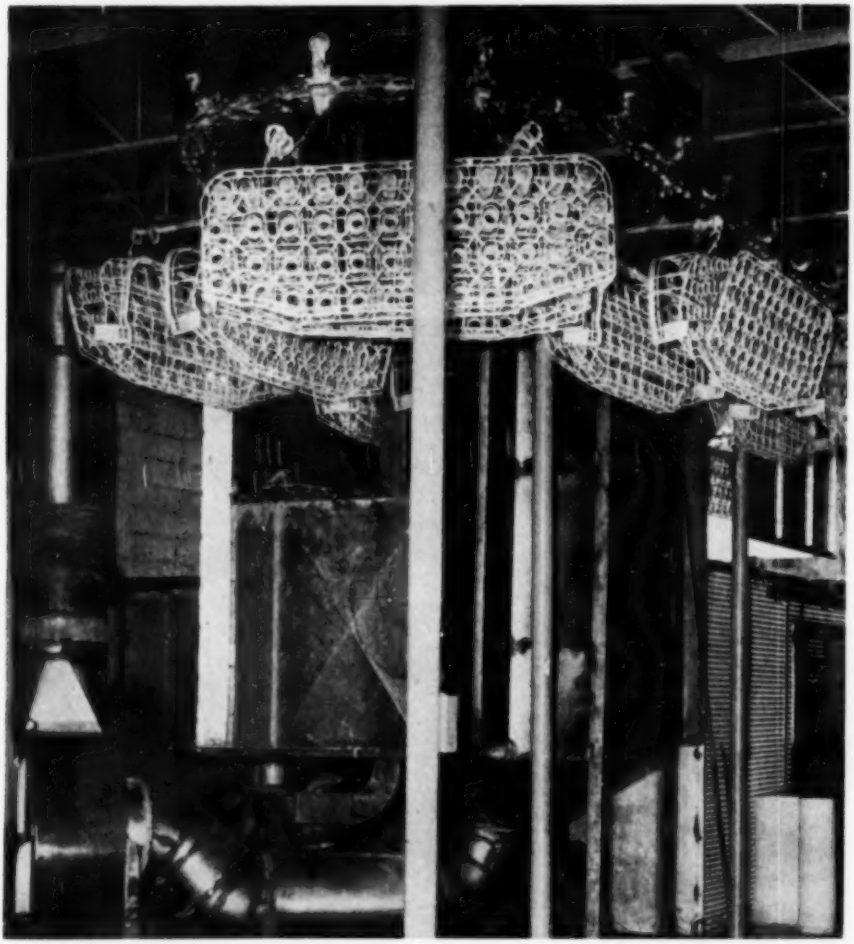
After passing through the flow coater, where a coating of adhesive is applied, the spring assemblies enter and pass through a flock coating chamber—and an infra-red drying oven.



Flock coated spring assemblies entering infrared oven which will dry the adhesive coating.

The equipment used to coat coil spring assemblies with flock consists of a flow coating setup for the application of adhesive, drip pans, flocking chamber, drying oven and deflocking unit, in the order named. The entire system is serviced by an overhead conveyor and is operated mechanically.

Spring assemblies are hung to hooks suspended from the conveyor which carries them through the en-



This is the deflocking chamber where loose flock fibers (surplus) are removed from spring assemblies by suction, drawn down through the exhaust fan and blown into a heavy canvas bag at the down-turned end of the vertical pipe shown at left. Recovered flock is used again.

SPRAYON "PUSH-BUTTON" TOUCH UP

PROVED AND ACCEPTED BY THE LEADERS OF INDUSTRY

USED BY THESE FAMOUS FIRMS

- Addressograph Multigraph Corp.
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- Automatic Canteen Co.
- Bell Telephone Co.
- Berger Manufacturing Division, Republic Steel Corp.
- J. I. Case Co.
- Coca Cola Bottlers
- Crosley—Division of Avco
- Delco Products Division, General Motors Corp.
- Allen B. DuMont Laboratories, Inc.
- Frigidaire Division, General Motors Corp.
- General Electric Co.
- The General Fireproofing Co.
- International Harvester Co.
- Jaeger Machine Co.
- The Maytag Co.
- Metal Office Furniture Co.
- Monroe Calculating Machine Co.
- Nash Kelvinator Corp.
- National Ventilated Awning Co.
- New Holland Machine Co.
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Only Sprayon can give you factory quality touch up every time! Adopted by industrial leaders from coast to coast, the custom-loaded Sprayon Self-Spraying Touch Up Tool ends your touch up problems! We go right to your source for your own touch up finish. Exclusive Sprayon design features mean even unskilled help do a factory-perfect job in *minutes*. Use it anywhere—from your own production line to the final customer. Nothing else to buy—it's a disposable low-cost, constant pressure spray gun—a complete paint shop in a can!

SPRAYON PRODUCTS, INC.
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SPRAYON *Self Spraying* TOUCH UP TOOL

WRITE TODAY FOR YOUR FREE "PUSH-BUTTON" FOLDER

tire system, with no need of handling until the job is completed. First the spring assemblies enter a coating chamber where a rubber-base adhesive is applied over the entire unit. The coating chamber is designed and built to minimize air currents, as is the drip pan area which follows; both are enclosed except for conveyor openings.

The balance between adhesive and solvents is such that spring assemblies drain properly before the coated springs enter the flocking chamber. Naturally, the coil spring assembly must be "tacky" to receive and hold the flock fibers.

Rayon Fibers Applied In Flocking Chamber

The tiny rayon flock fibers (250,000 to cover one square inch of surface) are fed into the flocking chamber by conveyor screws from a hopper outside the chamber. Air currents pick up the flock fibers and literally fill the air inside the chamber with them. The flying flock attaches itself to the "tacky" adhesive and completely covers every component part as it moves through the chamber. Some special arrangements are included inside the chamber to produce an ideal flock coating job.

Flock Coating is Dried and Deflocked

Upon leaving the flock coating chamber the coated spring assemblies pass through a drying oven where the temperature is just high enough to completely dry the adhesive, but not so high as to damage the rubber-base adhesive.

Just beyond the oven exit, the flock coated assemblies pass through a deflocking unit, where all excess flock, not securely adhered to the adhesive, is removed. Here any unattached fibers are picked up by strong air currents, and carried into heavy canvas bags for reuse in the flocking chamber. Upon leaving the deflocking chamber the continuous operation is completed. The spring assemblies are unloaded and stored, ready for shipment.

It is worthy of mention here, that while the flocking procedure just described and illustrated is in operation on a quality production basis, it is the first of its kind built (as exemplified by several patent applications on file) and research is still being carried on by the L. A. Young Spring & Wire Corporation, with the hope of making flock-coated seating constructions available to more people.

Knappman, Technical Director of United Lacquer

William E. Knappman, a veteran of 24 years in the field of paint research, has been appointed technical director of United Lacquer Mfg. Corp., Linden, N.J. Mr. Knappman will direct research activities in the company's development laboratory, which is being tripled in size.

The new technical director brings with him a vast background of experience in the field of raw materials, formulation and administration.

Mr. Knappman will continue to serve the U.S. Army Quartermaster Corps, as he has for the past four years, as a part-time consultant on protective organic finishes.

CLAREMONT

the Name that's quality—famous for

FLOCK

RAYON FLOCK

WOOL FLOCK

COTTON FLOCK

America's No. 1 Source of Supply, Modern Manufacturing Facilities, Careful Processing Supervision, Finest Quality Materials, Std. Lgths., 1/32" & 1/16" Other Lgths. to Specs. Rainbow Range, 18 Colors Sealed, Dust-proof Bag Shipments.

"An Ounce of Flock Creates a Pound of Allure"

Write for Samples Color Cards, Instruction Manual and Prices

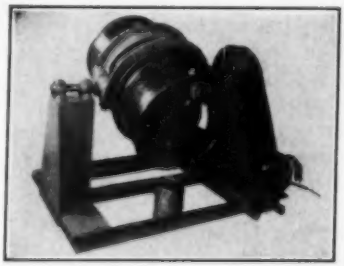
CLAREMONT WASTE MANUFACTURING COMPANY

The Country's Largest Manufacturer of FLOCK

CLAREMONT NEW HAMPSHIRE

DRUM TUMBLER

. . . for mixing materials in suppliers drums



Will tumble any drum end over end at 30 rpm. Detachable crank on end of motor shaft makes it posible to turn down into any position for testing contents or draining. Portable ramps for fast insertion and removal of containers.

ASSURES:

Uniform mix
Easy inspection during operation
Withdrawals in any quantity needed.

AVOIDS:

The fire hazard of open drums
Contamination of one product with another
Cleaning of equipment between mixes
Residual sludge

Send for descriptive literature!

THE VOL-U-METER CO., P.O. Box 54, Buffalo 16, N. Y.

Silicones In Finishes

Used properly—as to the why, how, where and when—materials containing silicones are fine, but used improperly, unwisely, they can be really troublesome.

By H. H. Connelly

RECENTLY A FURNITURE manufacturer placed a distress call with his finishing materials supplier. Could he come at once? The lacquer on his bedroom furniture was peeling before he could get it in the cartons. He made it unmistakably clear that something had to be done and quick, or the whole plant would be swamped with rejects; and the repaired stock was acting just as crazily.

A service expert was sent immediately to analyze the trouble. Upon reaching the plant he found that the peeling was localized along the top rail of a bed where a shading glaze was being applied over the sealer coat. In tracing the trouble he coated one-half of a board with glaze and then finished the entire board. He was satisfied at the end of his experiment that the trouble lay in the glaze. Since the product was furnished by another supplier, he was at a loss to answer the question of why the two were not compatible.

Shading Glaze Contained Silicones

After a hurried telephone call he found the trouble. The shading glaze contained silicones. But it should be pointed out that his troubles were not because of silicones, but their improper use. The manufacturer who incorporated the silicone into the glaze should have been more careful and checked the effect of the silicone addition, not only on the glaze but on the entire finishing system. As industry learns more of this new product, we will find an ever growing field for its expanding possibilities.

Already the possibilities shown by silicones in the paint and furniture field have been remarkable. Some manufacturers have given favorable reports on silicone-alkyd materials subjected to field tests involving such factors as sunlight, humidity, temperature and salt spray.

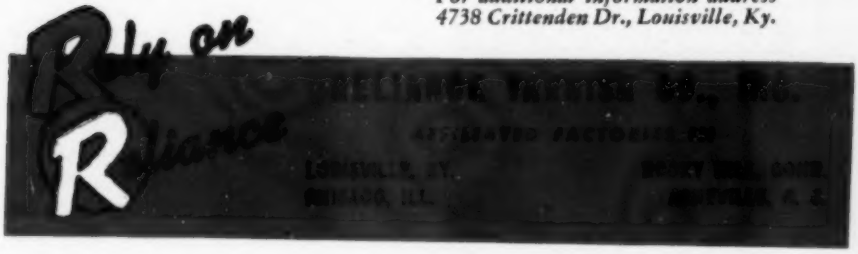
Silicone-based paints have shown a greater resistance to heat than ordinary organic paints, some remaining serviceable after exposure to temperatures as high as 1500°. Silicone-Alkyd resin films have good resistance to gasoline, dilute sulphuric, hydrochloric and acetic acids.

The use of wax containing silicones may add remarkable clarity

The men who create Reliance finishes are ready to "draw" on their resourcefulness, imagination and better than 30 years experience to deliver finishes that will fit your specific requirements — finishes that wear better, look better and are more economical.

Join our list of satisfied customers who know these facts and have seen them operate to their advantage and profit. May we suggest that you call on our technicians to analyze your needs without obligation?

For additional information address
4738 Crittenden Dr., Louisville, Ky.



and beauty to the finish. Furniture and automobiles rubbed with polish containing silicones show up attractively, and suppliers report that finishes treated with silicone wax will maintain their original luster and beauty much longer. On the other hand, disastrous results have followed where instructions regarding their use by the supplier were ignored.

A furniture manufacturer started using wax containing silicones without first acquainting himself with the precautions necessary to keep him off the hot seat. Consequently, a 3-week shut-down resulted. In the experience mentioned, the waxing rags, waste and towels were sent to a cleaner who laundered them with the soiled towels from other operations throughout the finishing room. This resulted in a general contamination of the entire supply of wiping rags. Accordingly, the furniture passing through the plant began to show unfavorable reactions and before the cause could be traced, the entire production was involved.

Why silicones seem to contaminate the under-surface like a mistreated skunk is still a chemical puzzle—a puzzle that industry is gradually unraveling as people learn more and more about this material. Strangely enough, if only the top finishing material contains silicones, no trouble is encountered. It's when a silicone undercoat is used alone that the trouble starts; then the top coat behaves like a loose skin; it wrinkles, hardens and peels. Off hand, one would assume that dirt, oil or grease was causing the trouble.

Precautions to Take When Silicones are Present

Here are three precautions worth considering if you are using or contemplate using silicones in your finishing plant.

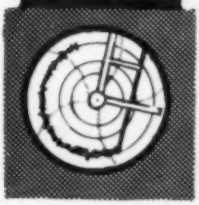
1) Remember, if you are using silicone wax and have to refinish an occasional piece of damaged furniture, you will encounter the same trouble unless you first remove all traces of silicones. First, wash the entire surface with turpentine and then follow with VM&P naphtha. As an additional precaution, do the washing with turpentine, scrubbing with steelwool. When through with the solvents, destroy them so they cannot possibly contaminate other materials.

2) See that all rags, waste and towels that are used over and over again are not washed with other towels, or with the same equipment. They should be returned for this operation only. Many suppliers of silicone wax advocate the burning of all rags and waste at the end of each day rather than risk this hazard.

3) When a concern finishes its furniture with materials that contain silicones, this fact should be made known to dealers who buy and sell the furniture. Otherwise, upon receipt of a damaged finish they may repair the defect with lacquer that is not compatible. The addition of a small amount of the proper silicone to the touchup lacquer will often take care of the situation. This should be done by the lacquer manufacturer only.

One finishing material supplier furnishes a tag to be shipped with each article of furniture, advising

Tested



"70 Hours at 300°F"

POLARLUX-7 has been tested to withstand 300° continuous heat for 70 hours, without becoming brittle, without losing its toughness, adhesion and flexibility, and . . .

"Without Yellowing"

Polarlux-7

WHITE BAKING ENAMEL

ABSOLUTE, ENDURING WHITENESS!

"For the best—Buy U. S."

POLARLUX-7 can be baked for 10 minutes at 350°; 15 minutes at temperatures between 300° and 325°.

POLARLUX-7 literally cannot be overbaked. It has exceptional resistance to humidity, salt spray and alkali. For details and samples, write:

U.S. Industrial Finishes

A U.S. Industrial Finish SELLS your product—wood, metal or plastic—through enhanced appearance and increased surface wearing qualities.

Our Research Laboratories and staff are among the finest in the industry. These facilities and personnel are at your service in the solution of any finishing problem.

U.S. Paint, Lacquer & Chemical Co.

— CHICAGO — ST. LOUIS — KANSAS CITY — MEMPHIS —

General Offices: 21st and Singleton; St. Louis 3, Mo.

of silicones in the wax or coating materials and mentioning the precautions necessary for repairing the part if damage occurs.

Editor's Note: A finishing material company's Technical Director who generously assisted in editing the original manuscript of this article added some timely words of caution and comment on the subject of silicone-based finishes and compositions. His concern is that, "a reader might become overly enthusiastic and/or excessively cautious in the use of silicones".

Continuing, he writes: "Because of the considerable amount of work our company has done with silicone-based finishes during the last six years, we are concerned at the amount of inaccurate, promotional type literature which is appearing in the general and technical press on silicone finishes.

"Silicone compositions are making a good name for themselves in definite limited fields; for example, heat-resisting finishes, weather-resistant finishes, insulating varnishes, polishes, etc.; but the silicones are not magic materials that will improve every finish with which they come in contact. Good silicone finishes are developed slowly, carefully and painfully. We deplore the thought that your readers might be led to think otherwise."

Cleans Floor Under Low Slat Conveyor

RECENTLY I visited a plant and, as usual, asked the superintendent, "What's new or unusual?" He thought for a few minutes before he replied: "Well we do have something that is new, at least to us, and it works. I will show it to you."

While we were walking to the finishing room, he explained: "We have always had difficulty keeping the floor clean under our wood cross-slat conveyor because the slats return so close to the floor that it is impossible to sweep under them. We solved the problem by placing a single row of ordinary palmetto scrubbing brushes (the kind you buy in any grocery store) across the width of the conveyor. The brushes are butted end to end and fastened with screws into one of the cross slats. On each return trip of the conveyor the brushes automatically sweep all dust, paper and foreign matter along to the end of the conveyor where the clean-up man can collect it for disposal."

I saw it working and it does operate satisfactorily.—*Ace.*

Maas & Waldstein Co. Holds Sales Conference

The annual Eastern Division Sales Conference of Maas & Waldstein Co., Newark, Chicago, and Los Angeles, was held on January 25 at the Essex House Hotel, Newark, N. J.

Guest speakers included Mr. James A. Bede, president of Bede Products, Inc., Cleveland, Ohio, who spoke on the subject of hot spray process, and Mr. R. L. Faber, District Representative of the Edwin L. Wiegand Co., manufacturers of radiant heaters for drying synthetic enamels.

B. F. Ames, general sales manager of M & W, discussed the company's expanded advertising and sales promotion plans for 1952. One of the highlights of the meeting was a resume of the remarkable progress made with one of the company's newest products, "Plextone," the multicolored enamel that is being used on industrial products and for architectural use.

BUILD A BETTER FINISHING DEPT.

Switch to DETROIT "TAC" RAGS and avoid rejects. Remove all dust, lint and sand quickly, efficiently. The standard for 17 years. Order from your supplier today, or send for sample.

FLAME RESISTANT HANDY DETROIT "TAC" RAG

DETRO MFG. & SALES CO., INC., CULVER CITY, CALIF.

Spe-de-way
WOOD BLEACH

This single operation, controllable, Patented Bleach

- Requires No Neutralization
- Does Not Raise the Grain
- Leaves No Deposit
- Wood Is Left Neutral
- Economical . . . Dependable

Gallon Unit makes two gallons of bleaching solution. Application by spray or synthetic rubber sponge. Wood is ready for finishing in less than two hours.

Delivered prices quoted on request.

Spe-de-way Products Co.

manufacturers

3639 N. Columbia Blvd., Portland, Ore.

- **Improve your finish!**
- **Reduce your cost!**
- **Save floor Space!**
- **Cut "in process" inventory investment!**
- **Control your cost!**

DeBURGH FINISHING SYSTEM can accomplish the above for you no matter how large or small.

Investigate:

DeBURGH CONVEYORS

Patented and Patents Pending

For Assembly, Finishing and Upholstery

1741 K St., N. W., Washington 6, D. C.

Magnetic

To be magnetic, products . . . as well as personalities . . . must possess attractive qualities. Finishes developed in our Creative Studio give you the opportunity to put your product in this "magnetic category".

Our skilled artists approach your finishing requirements with a singular thought. They are determined to provide an individualistic coating superior in texture, beauty, and ease of application.

Place your product on the preferred list by taking advantage of this service. No cost or obligation.

No Tampering with Quality

ROCKFORD VARNISH *Company*
ROCKFORD ILLINOIS

Manufacturers of Protective and Decorative Coatings

Affiliate
GORDON BARTELS CO.
Roller Coating Specialists

CO^2 for Spray Pressure

I am interested in securing information on a portable cup-type spray gun that uses CO^2 for pressure. I have several customers who are interested in securing a gun of this type for touch-up work. I have looked over some back issues of *Industrial Finishing*, but haven't been able to find anything concerning it. Will you please advise where these can be purchased.—*M.J.E.*

A cup spray gun of this kind was illustrated in a ½-page advertisement on page 119 of July 1951 issue of this magazine. A tear sheet of the ad is being sent to you.—*Editor.*

Sunshade Paint for Glass

We are writing in reference to one of the "Letters from Readers" on "Sun Glass Paint," which we read on page 96 of January issue. We would appreciate your informing your correspondent that "Sunshade" paint for glass is probably the leading product in its field. Besides reducing glare from the sun, it also has a heat insulating effect which provides protection for long periods of time. Although our product has not been used on transit cars (to our knowledge) it is used extensively on skylights as well as windows and other glass surfaces.—*Rex Home Supply Co.*

Our attention has been directed to the inquiry on "Sun Glass Paint" for use in painting the top windows of rapid transit cars to exclude sunlight.

We have for many years furnished our Turquoise Blue Luminall One Coat Interior Paint for this purpose, with very satisfactory results. This is applied on the inside of the glass.

Luminall is an emulsion paint in paste form. One gallon thins with one-half gallon of water, and exceedingly good coverage is obtained.—*National Chemical & Mfg. Co.*

Detects Glue Spots

I have noticed in one of the *Industrial Finishing* magazines, which I am unable to locate, that you mention the use of a fluorescent powder mixed in with a glue size, and the use of black light to detect glue spots on finished cabinet work. Would you be so kind as to send me information on this procedure? Also, the manufacturer's name of the fluorescent powder and the black light?—*H. Furn. Co.*

Articles and advertisements on this appeared in 1947—in October, November and December issues. It's a product of Grand Rapids Varnish Corp.—*Editor.*

Dust-Proof Floor Mat

It has been called to our attention that there is a floor mat available with remarkable adhesive properties. It is used at the entrances to rooms where cleanliness is of extreme importance, and prevents the tracking of dust and dirt into the area. It is de-

Conveyor Line
Finishing Prerequisites

A VERY IMPORTANT PREREQUISITE to a successful C. L. F.* operation is experience, or "know how," for which there is no substitute nor short cut.

Another, is the correct formulation of finishes used to make a C. L. F. set-up operate efficiently and on schedule. In addition to correct formulation, constant high quality and uniformity of the finishing materials used are of prime importance to a smooth uninterrupted C. L. F. operation.

Service is a much abused word and very often meaningless. To us it means, no delay, and that there must be qualified and experienced men available and on call when needed.

Our chemists and service men have pioneered in the development of C. L. F. formulations and in setting up C. L. F. operations for leading manufacturers everywhere.

If you are planning a new C. L. F. set-up, or if you are planning to convert your finishing production to C. L. F., our technical men have the "know how" to set up your schedule of operations and to recommend the materials to be used. They are at your service, without obligation. A phone call, a wire or a letter will give you the details of the recommended procedure to work out and solve your particular problems.

*Conveyor line finishing.

OUR 77TH YEAR OF SERVICE

The Lawrence-McFadden Co.

Headquarters for Fine Finishes Since 1875

Manufacturers of

FILLERS—STAINS—VARNISHES—LACQUERS—SEALERS—PRIMERS AND SPECIAL FINISHES FOR CONVEYOR LINE PRODUCTION

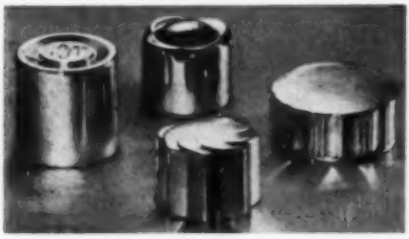
7430 STATE ROAD **PHILADELPHIA 36, PA.**

scribed as having a sticky surface that traps dirt and dust, but does not come off on shoe soles. It may be cleaned periodically to remove collected dirt, leaving the adhesive ready for use. We would appreciate information on where the product, as described, or similar to that described, can be obtained.—*Delco.*

Sorry, we don't know. Will some reader please tell us?—*Editor.*

Gold on Plastic

Will you kindly list our name as Metalizers in Gold and Silver on plastics, glass and metal? Finished pieces (illustrated here) will indicate the beautiful gold and silver effects possible with our process. We can mass produce items on an economical basis, particularly pieces that are about 2½-in. in diameter.—[*Name on request.*]



Glistening smooth gold-coated plastic caps for glass bottles that have threaded necks.

Paint & Varnish Removers

Would you kindly send us names and addresses of all manufacturers of paint and varnish removers specifically formulated for the furniture refinishing trade?—*M.H.D.*

In a letter we are naming those we have on our reference card.—*Editor.*

Window Glass Frosting

In January issue, "Letters from Readers," page 90, under the heading "Window Glass Frosting," we notice that a concern is named which manufactures a glass frosting, but their address is not given. Will you please give us the address of this concern? —*W.Mfg.Co.*

Information given.—*Editor.*

Squeegee or Gasket Finishing

Please send us the names of firms who manufacture materials, clear and colored, that can be used in gasket coating or squeegee equipment. We are attempting to finish a wood product by this method.—*D.Mfg.Co.*

In a letter we are naming several concerns who, we believe, can furnish materials for this kind of finishing.—*Editor.*

Stripping Conveyor Hangers

In December 1951 issue, page 7, we read an interesting notice entitled, "Stripping Conveyor Hangers." We would like to have more information regarding this process, such as products or installations used, name of suppliers, etc.—*A.H.L., Trooz, Belgium.*

In a letter we are naming concerns which, we believe, can take care of your requirements.—*Editor.*

Electrical Conducting Paints

You will remember that a few weeks ago I spoke to you on the telephone and you were good enough to give me the names of four companies who could supply metallic paint suit-

CUT FINISHING COSTS - INCREASE PRODUCTION
with BARRETT'S "WONDER" LACQUERS

New!

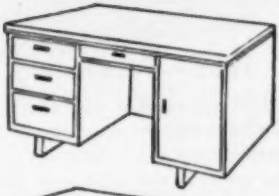
WONDERHOT
A BETTER HOT SPRAY LACQUER

Finishers of case-goods, radio and TV cabinets, and all fine furniture will find BARRETT'S WONDERHOT LACQUER the perfect solution for increasing production while maintaining high standards of craftsmanship.

WONDERHOT offers the economy and speed of hot spray methods, provides, at the same time, all the advantages—the durable quality—of slower, more costly multiple-coat finishes.

WONDERHOT requires no agitation before or during application, produces a lustrous sheen without hand rubbing. Here, indeed, are time and money saving features!

The flatting agent in WONDERHOT is not affected by heat. Depend on results of highest quality with WONDERHOT—everytime! Available in flat, gloss and semi-gloss, in either 35% or 30% solids. Can be rubbed if a piano finish lustre is desired.



BARRETT'S WONDERFLAT LACQUER

An old favorite with finishers who demand consistent high quality—complete uniformity! BARRETT'S WONDERFLAT, a cold application flat lacquer, imparts a smooth rubbed sheen without rubbing. Because the flatting agent stays in suspension indefinitely, no agitation is required.

Finishers who prefer a cold spray lacquer will appreciate easy handling, satin smooth WONDERFLAT LACQUER.

TRY BARRETT'S "WONDER" LACQUERS AT OUR EXPENSE! Write on your company letterhead for free samples of WONDERHOT and WONDERFLAT. Please specify sheen desired and indicate whether you have heating equipment. Let us prove, at no cost to you, how BARRETT'S "WONDER" Lacquers can cut your finishing costs and speed production!

Barrett Varnish Company

1532 S. 50th COURT CICERO 50, ILLINOIS

a complete line of dependable industrial finishes since 1870

able to provide electrical conducting paths. I am glad to be able to let you know that I have received replies to this inquiry from [three of them] . . .

In all cases the information given has been most useful and to the point, and the companies concerned have given me the names of their English associates or licensees.

I am sure that you will be glad to hear this, and as a result, to know how useful your records at *Industrial Finishing* prove to be.—*Richard Tilney, London, England.*

Flock—Fascinating Finish

Attractive designs, trademarks and monograms in colored flock make a striking effect, especially when the characters are sharply defined. An example of this appears on an announcement which recently came to the Editor's attention. Reproductions of the word "flock" and a neat monogram are shown here.

Produces a colorful raised texture coating that is both attractive and durable.

The concern referred to, leases equipment for the application of flock by a patented electrostatic method.—[*Name on request.*]

Where to Get Flock Supplies

I am interested in opening a business based on the application of flock finishes, but can't seem to locate suppliers of this line. I am writing you in the hope that you may be able to inform me as to the addresses of concerns, or individuals, who supply applicating equipment, flocks, adhesives and informative literature.—*W.R.S.*

Information supplied.—*Editor.*

Complete Finishing System

We are interested in getting the names of reputable firms capable of engineering and installing forced-dry finishing systems with complete conveyorization, for wooden furniture.—*L. Furn. Co.*

Information supplied.—*Editor.*

Touch-up Kits

We would appreciate receiving names and addresses of concerns that produce furniture touch-up kits.—*McC.I.*

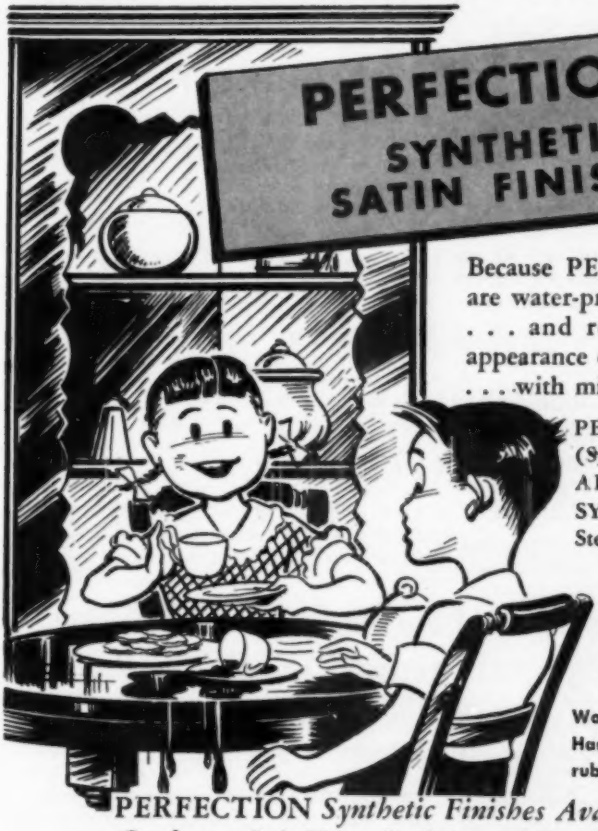
Information supplied.—*Editor.*

Want Bronze Powders

While reading the "Letters from Readers" in January 1952 issue, I was happy to find an article entitled, "Bronze Powders Available," on page 90. We are interested in the use of gold and aluminum bronze powders

Mamas DON'T WORRY

WHEN FURNITURE IS FINISHED WITH



Because PERFECTION finishes are water-proof . . . liquor-proof . . . and retain that beautiful appearance of hand-rubbed finish . . . with minimum care.

PERFECTION FINISHES (Synthetic or Lacquer Type) ARE FLATTENED BY SYNTHESIS rather than by Stearate or Other Foreign Flattening Agents.

Clarity of Gloss Lacquer even in lower sheens • Will either gloss or dull rub • Won't haze or sweat back • Has that rubbed effect without rubbing • Has a waxed feel.

PERFECTION *Synthetic Finishes Available in Grades to Suit Your Budget and Drying Time.*

PERFECTION PAINT & COLOR COMPANY

715 E. Maryland St., Indianapolis 2, Indiana

Perfection SYNTHETIC FLAT FINISHES

WATER-PROOF LIQUOR-PROOF

and would appreciate any assistance you can give us in locating several sources of supply.—*O. R. Co.*

Information supplied.—*Editor*

Lacquer and Shellac Sticks

We noticed that you published a note about some manufacturer making lacquer and shellac sticks which are guaranteed not to raise under lacquer. Can you send us the name of this manufacturer?—*B. C.*

In a letter we are naming concerns that can supply what you want. These items have been offered several times in the advertising pages of this publication.—*Editor.*

Interested in "Sicon"

On page 7, in the September 1951 issue, you mention a heat-resistant paint called "Sicon." Will you please send me the name and address of the manufacturer?—*C.L.T.*

This material was advertised in several former issues of *Industrial Finishing.* In a letter we are giving you the name and address of the manufacturer.—*Editor.*

"Of course, he has no reason to be nervous —but watch this!"

Books on Flock

Could I get a supply of booklets on flock finishing? Please give price per copy or per thousand.—*G. & G.*

We have no booklets on flock. Write the flock manufacturers, names of which are being sent to you by letter. —*Editor.*

Chrome Finish Wanted

C—— Corp., for one, is now using a chrome finish on parts instead of chrome plating, and it looks very real. We would like the name of a company that can supply this material.—*J.C.E.*

In a letter we are naming several concerns who can probably supply what you want.—*Editor.*

We Process Paint Sludge

We notice an article on page 82 of February issue entitled, "Who Buys Paint Sludge". We have been in the paint reclamation business for the past two years and are licensed under Chrysler patents. As far as we know, we are the only independent reclaimers who use condenser dehydration method which enables us to remove 99% of the water. We can guarantee the finished product to be smooth and glossy as the virgin enamel.

We are interested in the purchase of sludge. We are also interested in reclaiming sludge for anyone who would like to have their overspray reworked for their own use.—*Riverside Laboratories.*

Lacquers • Sealers

STAINS

GLAZES

FILLERS

ENAMELS

UNDERCOATS

SHELLAC

SPECIALTY FINISHES

•

Lacquers and Sealers in a wide variety of specifications. High or low solids. Glossy or flattened. For hot or cold spraying, for dipping or for special application methods. Tested for durability.

IN STEP WITH THE TIMES

JAMES B. DAY & CO.

CHICAGO 14

Air Bubble Trouble in Dip Tanks

We are troubled with air bubbles forming on the surface of paint in our dipping tank and some of them cling to the surfaces of dipped products as they leave the tank by conveyor. Later these air bubbles burst and show an unsightly mark on the painted surface. Is there some simple practical remedy for this?—*M.C.*

Air bubbles that form on the surface of some liquid coating materials in dip tanks do little if any harm to the finish, so long as they can be kept at the end of the tank where pieces enter by conveyor. Unless some means of moving the bubbles toward the end where the conveyor enters, they will float to the exit end of the tank because a mild surface motion is set up by the parts being drawn through the coating material. If air bubbles are allowed to accumulate at the exit end of a conveyorized tank some of them will attach themselves to the surface of dipped parts leaving the tank.

Two simple methods are available for moving these bubbles toward the entrance end of the tank. One is to install a material pump of sufficient capacity (according to the size of the dip tank) to pump the material up to a pipe positioned crosswise near the top of the exit end of the tank. This pipe extends along the full width of the tank and it has a series of flow nozzles such as are used on a flow coating machine. The nozzles are set just below the normal level of the material and they point toward the entrance. The width of the tank will determine how many nozzles will be required.

As the liquid material is pumped out of the flow nozzles, sufficient cur-

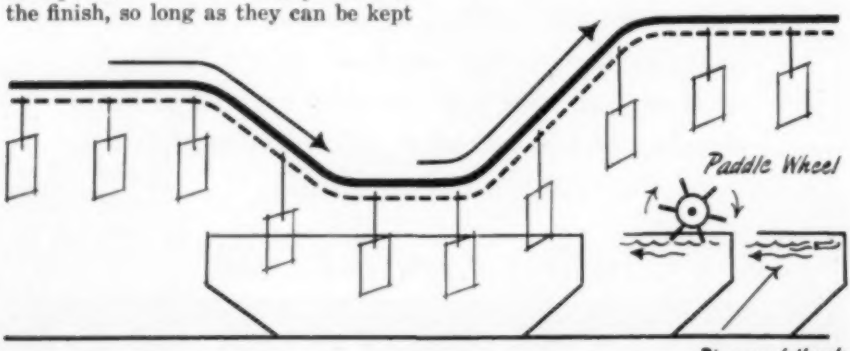


Diagram showing side view of conveyorized dip tank. At lower right are shown two methods of floating surface bubbles to far end of the tank where they can do no harm. One method involves the use of a small rotating paddle wheel; the other requires a circulating pump to pump material from near the bottom of the tank and force it through a series of nozzles.

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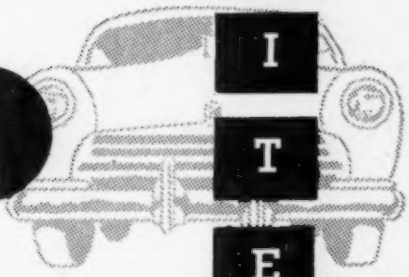
PROTECTION AGAINST
CORROSION,
WEATHER & ABRASION



VC
12

VC-12
versatile plastic strip finish

VC-12 is the plastic strip finish for which you'll find countless uses. It gives real protection against corrosion, weather and abrasion, and can be peeled off as simply as peeling a banana.

It's economical too. In fact, the price is so low, you'll find it truly functional as a coating for paint spray booths.

These are some of the typical ways in which VC-12 is now being used: (1) For protecting automobiles while in transit, domestically and for overseas shipment; (2) For masking during manufacturing operations; (3) Lining paint spray booths; (4) Protection during metal etching operations; (5) Coating fractional H.P. motors; and (6) Coating fine novelty jewelry.

You may find one of these uses applicable to your operation, or, you may find another use. Ask for our bulletin describing VC-12 in greater detail, and, at the same time ask for a generous working sample for your own tests.

PAINTS • SYNTHETICS
UNITED
LACQUERS • ENAMELS

United LACQUER MFG. CORP.
LINDEN, N. J. EVERETT 49, MASS.
PHILADELPHIA 19, PA.

rent will be created in a direction opposite to the conveyor travel to float the air bubbles back to the entrance end and keep them there.

The other method is to mount one or more small paddle wheels on a shaft that extends across the exit end of the tank and slightly above it. The paddle wheel shaft should revolve slowly, turning in a direction which will set up a gentle surface movement toward the entrance of the tank. This motion will be sufficient to float the air bubbles back to the entrance end of the tank where they can do no harm.

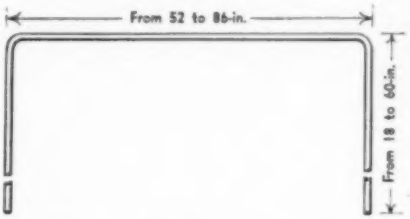
Of the two methods, the pump and flow nozzles is perhaps the better, in that constant circulation of the dipping material is obtained by pumping material from near the bottom of the tank and flowing it out at the top. So far as keeping surface bubbles in their place, both methods are effective.—*B.C.*

Painting Galvanized Bows of Tubular Iron

We manufacture a product that requires tubular metal bows, as shown in the accompanying sketch. These bows are made of ¼-in. and ⅜-in. (inside diameter) galvanized iron pipe, depending on their size.

The bows are used to support a convertible top for outboard and inboard boats. Galvanizing does not provide the needed attractive appearance, so it is necessary to paint it. Because of the extreme conditions to which the bows are exposed, we do not deem it advisable to use painted black iron pipe without galvanizing it, even though we would be able to achieve a better paint job.

We are confronted with a number of problems in developing an economical and satisfactory method of painting these bows. The situation is complicated by the fact that our anticipated requirements may not exceed two or three thousand bows during a year, making it impractical for us to go to extreme expense in developing a satisfactory setup for painting.



Bent bows of galvanized iron pipe.

Because of the limited space, whatever finish we use must be fast drying. Permanence of finish is not of too great importance although we would, of course, like a finish that is fairly durable, even over the galvanizing.

Last season we sprayed the bows with lacquer. The difficulty was that we seemed to use an excessive amount of lacquer and we were unable to produce a good finish on damp days. We wonder if we could coat these bows by dipping?

We will appreciate it if you will suggest the method and materials that you believe would serve our purpose best and be economical.

We are about to start our busy season on this item and we want to get set up as quickly as possible, therefore we will appreciate an early reply.—*A.T.Co.*

It is possible to paint these bows by dipping or flow coating. First, however, you should arrange to treat the galvanized surfaces with a suitable acid solution to slightly etch them so that paint will adhere to the

(Continued on page 92)

Whatever your sanding problem...

. . . there's a SUNDSTRAND Straight-Line Action Air Sander to solve it!

Yes, whatever the operation from white sanding through rubbing the lacquer finish . . . the versatile Sundstrand performs it equally well. And it's done smoothly, easily, quickly because the pads reciprocate in opposite directions *for straight line action!* No swirls, no pressure marks . . . no fatiguing vibration! Easily operated by women. Three models to fit your exact needs for finishing large or small areas, sharp corners, confined areas, curved surfaces. To always get a super-fine finish, get Sundstrand.

WIDELY USED FOR: White sanding, wash coat sanding, sealer sanding, rubbing lacquer finish, padding in filler . . . and any other special operations needed for a perfect finish. Write for free bulletin IF-3.

SUNDSTRAND

SUNDSTRAND AIR SANDERS

SUNDSTRAND MACHINE TOOL CO.

ROCKFORD, ILLINOIS

slick "greasy" galvanized coating. The etching treatment (several concerns supply it) may be applied by wiping it on, or it may have to be applied by dipping. The concern that supplies it will advise you on this.

Now as to the coating material, a lacquer type of paint or enamel will air dry or force dry faster than any other material. You might also investigate the possibilities of an air-drying, chlorinated rubber-base enamel, but this will not dry as quickly as lacquer.

In reference to your trouble with sprayed lacquer in damp weather, most of this can be avoided if you will consult your supplier for his recommendation as to a suitable type and quantity of retarder to be added to the lacquer at these times. For coating the bows, I suggest trying a good dipping lacquer.

Since your available space is limited I suggest that the tank be set under the floor with the top of the tank either flush with or slightly lower than the floor line. A heavy tank lid will permit the space to be used when the tank is not in use. The tank should be removable for cleaning.

The paint dipping tank could be 6 or 8-in. wide, 8-ft. across and 8-ft. deep, with suitable drip pans extending a reasonable distance beyond the tank to catch the delayed dripping of excess paint.

You could design and build a simple rack so that several bows could be dipped at one time. Attach this rack to an overhead vertical hoist so the bows can be lowered straight down into the tank, then lifted straight up, and then moved forward to hang suspended over the drain board. If possible, hang each bow so that *all of its surfaces slope down* to allow a free run-off of excess paint—this to avoid "fat edges" along a horizontal edge.

The angle at which the bow is withdrawn, as well as the speed of withdrawal, is highly important. The hooks or racks used for dipping and suspending bows should be made to position the bow correctly in each case, both for dipping and draining. Also, it should be remembered that the speed of withdrawal should equal rate of lacquer flow from the surface of the pipe. The nearer you attain this equalization, the less dripping will occur.

Turned wooden plugs or bungs may be inserted in the two free ends of each bow to prevent lacquer from filling the pipe. When lacquer accumulates on the plugs it can be removed in a small stripper tank.

For fire protection I suggest that you install a suitable CO^2 system over the lacquer dip tank and drain pans.

With a flow coating setup you could use the same size tank and arrange fan-spray nozzles along both sides near the top of the tank, so that as a rack of bows is lowered and withdrawn, all surfaces would receive a flow-on of paint, with the surplus falling to the bottom of the tank, to be pumped into pipe lines and through the nozzles again. This setup would cost more than the plain dip coating arrangement, but your tank would not have to be filled to near the top with paint.—*P.C.B.*

Finishing Golf Tees

We have a prospective customer who is interested in purchasing a continuous barrel type finishing unit that can be used to coat wooden golf tees on a production basis. These tees are to be finished with a combination stain and wax material.

We are interested in obtaining information as to a manufacturer who might have available, as standard

MAR-PROOF LACQUER

SCHAEFER'S Mar-Proof Lacquer is a performance-proven finish that cannot be easily marred or scratched.

It's tough—tougher than the ordinary lacquers; meets the most critical requirements of current production.

Made in either clear gloss rubbing or satin finish, it produces a splendid transparent coating of full depth on maple, walnut, gum, mahogany and other cabinet woods.

Economical; gives plenty of coverage and dries quickly. Our Mar-Proof Lacquer Sealer is recommended with it for a first-coater.

Working samples furnished without obligation. Write for them!

THE SCHAEFER VARNISH COMPANY, INC.
Louisville, Kentucky

equipment, some type of barrel unit or revolving cylinder unit so that these tees might be placed in one end of the barrel or cylinder and come out the other end finished.

Also, if possible, we would like to have the tees proceed continuously through a revolving barrel or cylinder containing sawdust which would act as a polishing agent for the tees.—*M.H.Co.*

We do not know of a "continuous barrel type finishing machine" but are sending you names and addresses of manufacturers of tumbling barrels, centrifugal and dip-whirl machines which are used for coating a variety of small items in large quantities.—*Editor*

Dip Coating Job

I am operating a wood-working shop and am taking some jobs on which it is desirable to finish with a single-dip coat of varnish or some modification thereof. This coating should dry smooth and hard without the varnish congealing in droplets at the bottom of the board as it drains and dries.

I have seen samples of work that seem to have a very heavy coating of what appears to be varnish, apparently applied as a single coat by the dip method.—*W.G.*

Several manufacturers can supply you with coating materials especially designed for dip coating. If these materials are used properly there will be little if any clinging droplets at the low corners or edges of dipped parts and products.

Fine dip coating jobs are produced with a machine that has a smooth steady adjustable and controllable rate of speed, where either the products are dipped and then slowly lifted from the tank or the tank of material is lifted to the suspended products and then slowly lowered from same. Rate of speed is such that the surplus coating material gently "peels off" from the coated surfaces so, if you look closely, you can see it clinging very slightly above the level of material in the tank.—*S.S.*

It is possible to dip certain types and shapes of wood products in either varnish or a clear synthetic material.

There is more to successful dipping than meets the eye. The product must be of such size and shape that it will drain properly; that is, so that the coating material will not become trapped inside. The position in which it is hung for dipping is important; also, the speed at which it is withdrawn from the dip tank, and finally the balance between varnish, or clear synthetic, and the solvents used. The viscosity of the material is important.—*S.M.*

B. R. Hale Becomes V. P. of A. C. Horn Co.

The A. C. Horn Co., Division of Sun Chemical Corp., announces the appointment of B. R. Hale as Vice President in charge of products finishing.

Mr. Hale, a graduate of Lehigh University, has been associated with the A. C. Horn Co. since 1930, except for four years as a Lieutenant Commander with the United States Navy.

For the past few years Mr. Hale has been actively engaged in the development of protective coatings and hand tailored industrial finishes for wood and metal surfaces. Under his direction the manufacturing, research and sales program of Horn products will be greatly broadened.

Rollacoat for economy

GET FINER—FASTER FINISHING!

The benefits to be gained by using the Rollacoat method of applying finishes and protective coatings, to practically any type of flat materials, are three-fold. In the first place coating speeds are greatly increased over those of any other method and are governed largely by how fast the coated materials can be handled or dried. Secondly, the coverage per sq. ft. per gallon is usually at least 50% greater, the only loss being the paint removed from the rolls at the end of a run. In the third place you obtain finer quality of finish due to accurate control of thickness and eveness of coat.

The applications of Rollacoating are numerous. Top, bottom and sides of practically any type of flat material, whether sheet or coil stock, can be coated by a single pass through the machine.

Special equipment for cleaning, treating, coating, drying, and rewinding strip in continuous process can be constructed to special order.

GASWAY CORPORATION

Write or wire today for the 12 page Gasway illustrated book describing Rollacoat Finishers, their possibilities and limitation.

6463 N. Ravenswood Ave.
Chicago 26, Illinois

Spray Booth Wall Coating

Vincote, a new vinyl-type paint spray booth coating has been specially developed for use on the side walls of water-wash and dry paint spray booths. The coating dries rapidly when sprayed on a wall and forms a tough plastic film. It is impervious to paint, enamel, lacquer and water.

When paint overspray has built up to the point where it should be removed, the loaded coating is peeled off in large sheets. This coating eliminates the need of using such hazardous materials as grease, paper, etc., on spray booth walls.

Peels off easily in large sheets.

Vincote can be applied with any standard spray equipment. A gallon will cover from 275 to 400-sq.ft. of surface, depending upon the desired thickness.

For further information write Detrex Corp., Detroit 32, Mich.

Stain-Proof Masking Tape

Behr-Manning Corp., Division of Norton Co., Troy, N.Y., announces the addition of No. 115 Stain-Resistant Masking Tape.

It is designed for use on lacquered, enameled, painted and porcelain enamel surfaces where color separation, masking, packaging and holding functions are required, such as kitchen cabinets, ranges, refrigerators, etc.

It is particularly effective on white, off-white and light pastel colors, where chemical reactions of some masking tapes have a tendency to stain.

The facilities of Behr-Manning research laboratories are available for discoloration and accelerated aging tests. Invitation is extended to forward sample panels or samples of the finishing agent that is to be exposed to pressure sensitive tape application.

Hot Pigmented Lacquers

Development of hot spray lacquers in a wide variety of colors is announced by Monroe Sander Corp., 1018 46th Ave., Long Island City, N.Y. Hot spray lacquers reduce costs and speed up production for manufacturers of furniture and other wood products.

In hot lacquers, heat is used as a viscosity reducing agent. The finishes

QUALITY
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GOVERNMENT SPECIFICATION
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COAST LACQUERS cost less because we pass along to you the savings made possible by our immediate contact with the huge chemical plants of the Gulf Coast from which we obtain our superior raw materials at low cost. Write for information and prices.
CPL
COAST Paint & Lacquer Co. Inc.
P. O. BOX 1113, HOUSTON 1, TEXAS

are adjusted to give the right viscosity when heated; fewer coats are required, coverage is increased per gallon, rubbing of finished products is easier, blushing on humid days is overcome, etc.

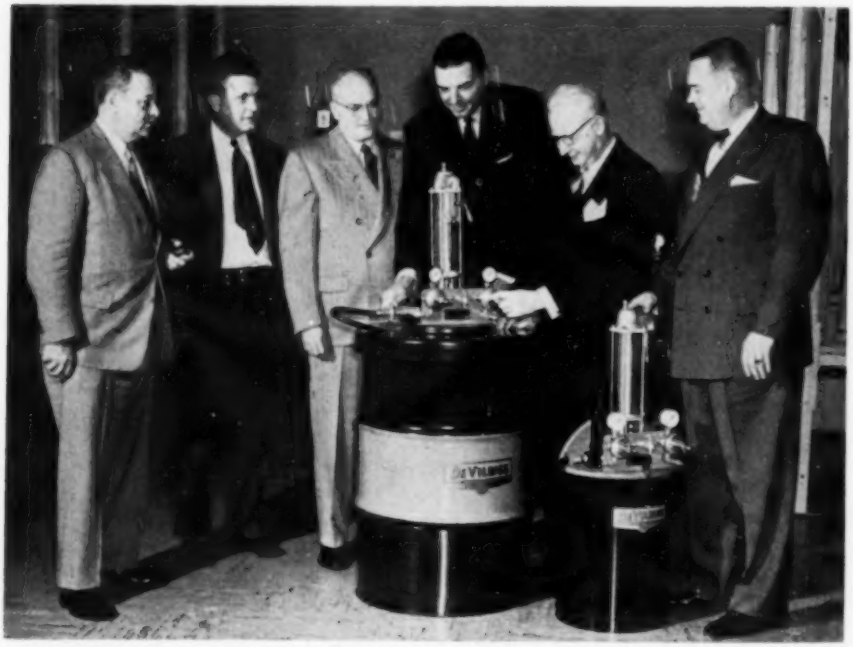
Delivery Material Pumps By DeVilbiss

Advantages of the large paint circulating systems used in major industries' spray painting divisions now are available for smaller scale production finishing and coating operations with the introduction of Type P-QBD volume delivery material pump by the DeVilbiss Co., Toledo, Ohio.

The new pump is designed to deliver material directly from the original container to spray guns, with a resultant reduction in spillage and waste, as well as time-loss created by frequent replenishment of material.

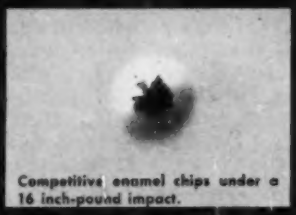
Two models of the pump are being produced. One is designed for use with common types of 55-gallon drums; the other comes equipped with a 10-gallon hinged lid tank into which a standard 5-gallon paint container can be fitted.

Both models are adapted for simple direct hose line connections, with



New paint pumps, now being announced by the DeVilbiss Company, are the center of attention of this group of DeVilbiss executives who participated in the company's annual meeting of district sales managers on Jan. 31 through Feb. 2 at the main plant in Toledo. Starting at the left, they are: D. J. Peeps, v-p engineering; H. P. DeVilbiss, president; R. L. Morrison, executive v-p; W. C. Spruce, southwestern dist. mgr.; R. C. Petersen, midwest district manager; and R. F. Whitell, middle eastern district manager.

Why severe impact won't crack an EPON® RESIN finish



Competitive enamel chips under a 16 inch-pound impact.

Epon Resin-based enamel is unaffected by maximum impact of 28 inch-pounds.

The Set-up: An impact tester which permits a falling 2-lb. weight to dent an enameled test panel. A variety of metal panels, including aluminum, was used—but the result was always the same.

The Result: Competitive enamels flaked and chipped off. *Epon Resin-based* enamels adhered to the metal without the slightest trace of failure. In fact, the Epon Resin finish successfully withstood a maximum impact of 28 inch-pounds, while conventional finishes failed at 16 inch-pounds or less.

The Reason: The Epon Resin molecule is an entirely new class of polymer with evenly spaced reactive groups which permit it to cure to a flexible film. Also, its polar nature contributes outstanding adhesion. As a plus value, Epon Resins have excellent resistance to detergents, caustic and many acids.

Write to your nearest Shell Chemical office for more information and samples

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Shell Oil Company of Canada, Limited
Toronto • Montreal • Vancouver

which as many as six spray guns can be operated from a single pump.

One or more drum-type pumps also can be used as the nucleus of easily installed pipe line circulating systems, with a maximum supply potential of eight spray guns to a pump, to provide economical and efficient material supply to a high volume finishing line.

An important feature of the P-QBD models is the automatic by-pass valve which enables the pump operator to maintain paint mixtures at correct consistencies and permits fluid pressure control, thus eliminating surges.

A number of accessories are available, with which to adjust atomization air, control pump pressure, protect material from dirt, and provide the required fluid regulation for even the most delicate spray operations.

Pumps and material supply may be located in supply rooms or other spots away from the spray operation in the interest of better material control, reduced waste and greater safety.

The new pump can supply as much as 25-oz. of material per minute to eight spray guns in a steady, uniform flow with the pace of pump operation controlled by the operating rate of the spray guns.

It is capable of delivering the heaviest bodied fluid materials to high elevations and through considerable length of hose or pipe, developing up to 200-lbs. material delivery pressure.

Sprays Liquid Compound on Revolving Buffing Wheels

The Lea Gun Mover, a compressed air operated device for the Lea Emulsion Spray Method of applying liquid compositions, such as Lea Liquabrade surface finishing compounds to wide faced buffs, has been introduced by The Lea Mfg. Co., Waterbury, Conn. Developed in cooperation with the Clair Mfg. Co., Oleon, N.Y., Lea Gun Movers operate efficiently on any surface finishing equipment.

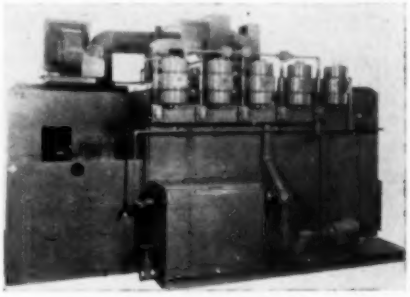
Before the development of this device, the use of liquid compounds was penalized because existing equipment continued to spray during directional halts, deceleration and acceleration. According to the manufacturer, the design principles incorporated in the Lea Gun Mover eliminate this overloading of sprayed surfaces and waste of compound.

In operation, the Lea Spray Gun Mover automatically completes one pass each time the operator trips the convenient foot pedal microswitch. This equipment is available in a series of different sizes. For additional details on the Lea Spray Gun Mover, write to The Lea Mfg. Co., Waterbury 20, Conn.

One-Man Spirits Washer

A new mineral spirits washer, designed for one-man operation, has been placed on the market by Detrex Corp., Detroit 32, Mich. Loading and unloading of the machine is a simple one-station operation through the use of a return-type conveyor.

The cleaning cycle of this equipment consists of two washing stages and a forced air blow-off. Easily adjusted spray nozzles provide an



One operator for this safe machine.

Inside the formula of every **RANDOLPH FINISH . . . .**

Randolph Finishes—developed over 18 years of intensive research and experience—are playing a mighty part in today's production drive. Producers of both defense and civilian goods are coming to Randolph for coatings that serve their products best. Dress up your product, give it its staunchest surface and new sales vigor with a Randolph Finish!

DEPENDABILITY
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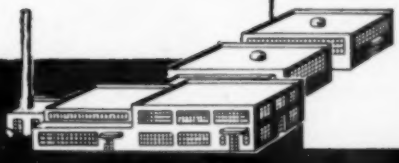
SERVICE

Every Randolph salesman is a technician—thoroughly experienced in his field. Discuss your finishing problems with him freely. Call on Randolph's technical resources for more dependable and economical production.



RANDOLPH
PRODUCTS COMPANY
CARLSTADT, NEW JERSEY

DOPES · LACQUERS · ENAMELS · THINNERS

even all-over coverage of the parts being cleaned, regardless of irregularities in shape. Explosion-proof switches and motors, all moving parts manufactured of nonferrous metal, a complete exhaust system and an automatically actuated carbon dioxide system are the principle features.

It is designed to clean a variety of standard production parts, and it can be adapted to many special cleaning applications.

Polyethylene Exhaust Systems

Exhaust systems for corrosive vapors and fumes, fabricated throughout from Polyethylene, are announced. These installations, including tanks or tank liners, exhaust hoods, fume ducts and stacks, or any part thereof, are built to customer's specifications.

These systems offer corrosion resistance against most acid fumes, including hydrochloric, hydrofluoric, sulfuric and nitric acids. They are easy to clean and will outlive most other construction materials when used in temperatures between 20° and 270° F.

For further information write American Agile Corp., P. O. Box 168, Bedford, Ohio.

Conveyor Belt Stands Heat

The new, untreated ABC Hotstuff conveyor belt is ideal for industries using infrared and radiant heat ovens for rapid drying operations. Constant temperatures of 600° F. and upward are well within the range of this canvas-asbestos belt. Since the belt surface is not treated, "weeping" is eliminated and there is no danger of product contamination.

For further information about ABC Hotstuff, write Main Belting Co., 1241 Carpenter St., Philadelphia 47, Pennsylvania.

Small Paint Heater for Cup Gun Spraying

The Spee-Flo Co., 3603 Harrisburg Blvd., Houston, Texas, announces its new Model 202 hot-spray heater. It uses the original one-gallon paint can as the heating vessel, automatically mixing and heating one gallon of lacquer or enamel to uniform temperature ond viscosity throughout.

A feature of the new model is the Thermatrol Selector which is entirely enclosed in a vapor-proof case and is now an integral part of the Spee-Flo heater. The timer can be set to the proper weather temperature and will automatically return to the "off" position, at which time the paint will be at proper temperature. If the painter is not immediately ready to use the material the heater will continue to control the paint thermostatically for as long a time as may be necessary.

Model 202 is for finishers who use up to three gallons per hour. For further information write the manufacturer.

Electrically heats the paint in its original one-gallon container; then you pour the hot liquid into your spray cup.

WITH

LIQUID ENVELOPE

PEELABLE PROTECTIVE PLASTIC FILM

Keep your booths firesafe this labor-saving way:

1. **Scrape down and spray on "LIQUID ENVELOPE" with your regular spray-equipment.**
2. **When overspray accumulates, break "LIQUID ENVELOPE" skin and peel off in great, big pieces. Re-spray.**

That's all there is to it! You save labor . . . promote fire safety . . . get better illumination. Costs less than outmoded hand-scraping or grease-papering. Order 5 gallon Test-Sample at the Drum Lot price. Hundreds of smart operators have!

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Hubbard & Stau, Los Angeles, Calif.
The Plastic Paper Co., Los Angeles, Calif.
C & H Supply Co., Seattle, Wash.
Hugh Russel & Sons Ltd., Montreal & Toronto, Canada

Dry Chemical Fire Extinguisher

A pressure operated, dry chemical portable fire extinguisher is announced by Walter Kidde & Co., Inc., 40 E. 34th St., New York, N.Y. The unit answers the need for a small, dry chemical unit that can be recharged easily in the field. The design permits it to be serviced following discharge by simply pouring 5-lbs. of dry chemical into the powder chamber and, with the aid of a gas station or factory air line, charging the unit with 150-lbs. of compressed air.

This unit has the same diffusion discharge pattern which has proved successful in the 20 and 30-lb. models. The nozzle discharges a cloud-like pattern which is most effective in extinguishing class B (flammable liquid) and class C (electrical) fires. With a range of 5 to 7-ft., the cloud pattern also eliminates the possibility of splashing burning substances as a result of too forceful a discharge stream.

Resists Acids, Alkalis, Etc.

Phenoline 300 is an improved corrosion resistant phenolic resin which sets hard at room temperature and requires no baking. Applied by brush, spray or trowel, it adheres strongly to steel, wood, most plastics, carbon, transite or concrete, offering maximum protection against most organic solvents, caustic soda, dilute acids and boiling water.

Phenoline 300 resists 400° to 500° F. dry heat. Its bond to steel is not affected by quick temperature changes from 320° F. to 60° F. When applied on concrete, repeated cooling to 0° F. and heating to 100° F. causes no checking or cracking. It consists of 100% solids. No water is liberated during polymerization, resulting in practically no shrinkage.

Phenoline 300 may be sprayed in coats 3 to 8 mils (.003 to .008-in.) thick, brushed in coats 4 to 12 mils (.004 to .012-in.) thick, or troweled in almost any desired thickness. Except for certain grades of rubber, no primer is required. A product of Carboline Co., 7603 Forsyth Blvd., St. Louis 5, Mo.

Plastic Strippable Coating

Development of a versatile plastic strip finish VC-12, that provides excellent protection against corrosion, weather and abrasion, and which can be peeled off easily, is announced by the United Lacquer Mfg. Corp., 1001 W. Elizabeth Ave., Linden, N. J.

It is suitable for use in temporary masking during manufacturing operations, for lining paint spray booths, protection of thin chrome-plated surfaces, protection of automobiles for overseas shipment, protective purposes in metal etching operations and for coating fine costume jewelry.

The coating may be applied by spraying or brushing; it sets to touch in 15 minutes; dries to packing hardness overnight, and is available in clear or in tints.

Power Ventilator in Roof

A motor-driven ventilator for mounting in the roof of a plant is offered by Tripar Products, Inc., 14641 W. Eleven Mile Road, Royal Oak, Michigan.

The instant the fan is started, mechanically actuated louvers open fully

MEET
The *Man* Behind The Man Behind Your Spray-Gun

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. . . Whether your finishing problem is to develop a coating to add life and durability to your product . . . one to perk up sales appeal . . . a system to cut production costs, or a formula to meet exacting defense work specifications . . . it will pay you well to get acquainted with an Egyptian Industrial Finishes Specialist . . . he's the man behind the man behind your Spray Gun.

Your Egyptian Industrial Finishes Specialist can keep you constantly informed of the developments of new finishing techniques and how you can benefit by them. He can tell you why it would be more advantageous to coat your product by the dip, spray, tumble or roller coat application method. He knows and can tell you the required specifications for finishing any government product.

Put this highly specialized knowledge to work for you!

Invite an Egyptian Industrial Finishes Specialist to call on you today.

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The EGYPTIAN LACQUER MANUFACTURING CO.

BOX 444, NEWARK 1, NEW JERSEY

Plants: South Kearny, N. J. • Lafayette, Ind.

and automatically. Power to open louvers is provided by the fan drive motor through simple lever-clutch mechanism. The fan is stopped, the louvers close and lock in closed position until the unit is turned on again.

This automatic louver design prevents entrance of rain or snow, eliminates drafts or "stack effect" when unit is not operating, and prevents back-draft or entrance of outside air. It offers reduction in fire hazard by eliminating any draft through the roof in event of a fire. Because the louvers lock closed, burglar and sabotage protection is afforded. Exhaust air discharges upward to protect roof from damage by fumes or moisture removed from plant.

Dry Film Thickness Gauge

From England comes a dry film thickness gauge called "Elkometer" which measures film thicknesses to plus or minus 5%, plus or minus .0001-in. accurately. It is constructed so that readings may be taken on flat surfaces or curves. Readings may be taken in inaccessible places and the gauge locked before being brought out for accurate reading.

This pocket size gauge requires no outside power; may be used inside or outside the plant. Standard models contain scales in mils and millimeters.

For further information contact Gardner Laboratory, Inc., 4723 Elm St., Bethesda 14, Md.

Chadeloid's New NGR Stains

The Chadeloid Corp., developer of non-grain-raising stains, has brought out a new stain which is available through the firm's licensees, which include practically every prominent stain manufacturer.

They are known as Chadolite or Indian Summer stains. They offer depth of color, enhanced grain definition and deep penetration in a wide range of shades.

A brochure illustrating this new stain is available by writing to the Chadeloid Corp., 105 W. Adams St., Chicago 3, Ill.

Small Air Compressors

Schramm, Inc., West Chester, Pa., presents a line of small industrial compressors built in sizes ranging from ½-h.p. to 5-h.p. Each one is a complete self-contained compressed air system, in single and two-stage models, horizontal or vertical tank.

Models include, bare compressor (with flywheel) on base with electric motor, on horizontal receiver with motor or gasoline engine, etc.

Features on receiver mounted include safety outlet valves, pressure gauge and switch, intake muffler with air filter, light wafer-type valves (only five parts), air cooling fan-bladed flywheel, V-belt drive, controlled lubrication and finned compressor cooling.

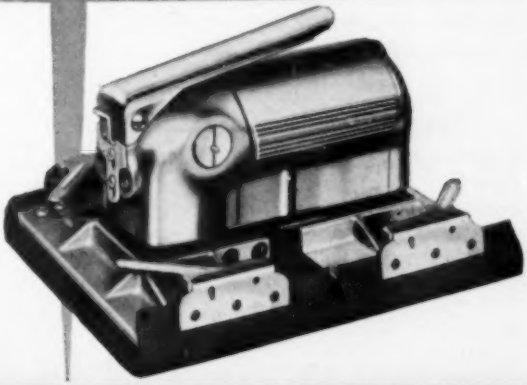
Electric motor or gasoline engine drive.

National Sanders

STRAIGHT-LINE *or* ORBITAL ACTION

National offers either orbital or straight-line action in its line of light-weight, fast, portable air sanders. Orbital action for speed and longer abrasive life . . . straight-line action for applying pattern or conforming to grain. No matter what type of sanding is most satisfactory for your needs, be sure and see your National Sander distributor. He is able to advise you impartially as to the machine that will best fill your requirements. Write the factory for details.

- *Light-weight*
- *Powerful*
- *Vibrationless*



NATIONAL NS SANDERS

NATIONAL AIR SANDER, INC.

2820 AUBURN STREET, ROCKFORD, ILLINOIS

Water-Type Fire Extinguisher

A non-inverting, pressurized, water-type extinguisher is easy to operate because of its squeeze grip or lever action control and the panic-proof puncture pin which insures discharge will take place, once the seal is punctured, regardless of the position of the handle. It is made of brass.

The charge consists of plain water and a pressurized carbon dioxide cartridge. Replacement cartridges come completely charged, ready for instant use.

Underwriters' approved, these General Quick-Aid Water-Type Fire Guards are available from The General Pacific Corp., 1501 E. Washington Blvd., Los Angeles 21, Calif., or The General Detroit Corp., 2272 E. Jefferson Ave., Detroit 7, Mich.

Phosphatizer For Steel

Kelite Keykote is a new powdered material developed to phosphatize steel and iron at low concentrations.

An unusually fine powdered material which operates in a pH range as low as 3, it doesn't require stainless steel tanks. Inexpensive black iron tanks may be employed which can be heated by immersion heaters, steam coils, or burners under the tanks.

It will not sludge out, therefore no screen is necessary in the dip tanks. No powder deposits remain on work. The solution may be applied by either spray or immersion, and may be rinsed if called for, but this is not necessary. Normal immersion time is one to two minutes.

For further information write Kelite Products, Inc., 3401 W. Touhy Ave., Chicago 45, Ill.

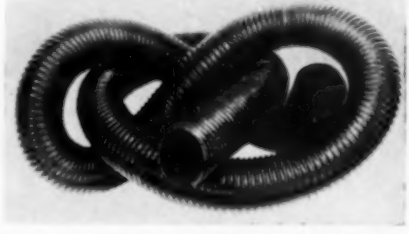
Pearl Essence Pigments; Flakes

One of two products announced by Iridescent Pigment Corp. of America, P.O. Box 1605, Wilmington Dela., includes pearl essence pastes consisting of guanine crystals in nitrocellulose, cellulose acetate, acrylic, polystyrene and polyvinyl alcohol lacquers.

The other is iridescent flakes larger than 40 microns; these are produced in three sizes, the largest about ⅛-in. long. Suggested uses are for decorating paper, cloth and leather. They are applied by the flocking method.

Flexible Reinforced Hose for Pressure Or Exhaust

The American Ventilating Hose Co., 100 Park Ave., New York 17, N.Y., announces the development of a light weight, extremely flexible hose made with neoprene compounds and laminated nylon chafer duck. For pressure and vacuum services, this wire-reinforced Flexaust type has been designed for operations involving abrasive dust collection, heavy flexing and gravity feeds. Sizes range from 1½-in. to 24-in. inside diameter.



Wire reinforced synthetic rubber and duck.

Clean-Up Polish, "Triple S" For Furniture

A new clean up polish, "Triple S," has been developed by the Edward J. Shannon Co., Cincinnati 13, Ohio. It cleans, polishes and protects furniture with a polishing action that is totally non-abrasive. Both oil and water soluble dirt are removed, as well as fingerprints in one operation.

The polish performs equally well on lacquer, varnish or synthetic finishes. It is free of harmful acids that might attack the finish, is non-inflammable and non-toxic.

Silicone-Base Water Repellent

Do you have a leaky wall or foundation above grade where dampness is causing a problem? A clear, silicone base material has been developed which may be sprayed or brushed on exterior surfaces; the coating repels moisture.

It is quick to develop repellency after application, may be used on most types of masonry, is effective against efflorescence, causes no change in masonry appearance, and does not seal the pores, allowing masonry to "breathe." It may be painted over. Oil-base paints adhere and do not impair water repellency.

For further information write the Ranetite Mfg. Co., 1917 S. Broadway, St. Louis 4, Missouri.

All-Type Surface Decals

Decals that may be adhered to many different types of material have been developed by Alabama Associates, 318 N. 16th St., Birmingham, Ala. Known as All-Type Bamacals, they may be used on all plastics including polyethylene, polystyrene, vinylite, Bakelite; also, on all metals, castings, polished surfaces, chrome plated, enameled, wrinkled and embossed finishes and leather. These decals are available in any color and are made to customers' specifications.

Powder Prevents Gummed Surfaces From Sticking

A new product called Zola No-Stik Powder, tested under all humid conditions, eliminates the annoying problem of envelopes, labels, stamps and other gummed articles from sticking together. It also prevents mold and other fungus growths.

This powder is snow white, tasteless, odorless, non-toxic, and will not harm or discolor paper or affect the color of inks. It does not affect the adhesive qualities of articles treated. Envelopes or any gummed surface treated can be moistened with the tongue safely.

For details write, Zola Products Co., Inc., 1588 N.W. 27th Ave., Miami, Fla.

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A service to aid industry in producing longer-lasting and better-looking products. Quick predetermination of durability and permanency by actual exposure test in South Florida. Write us today for full information.

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Pearl Lacquer

$5.50 per gal. in five gallon lots, f.o.b. Wilmington

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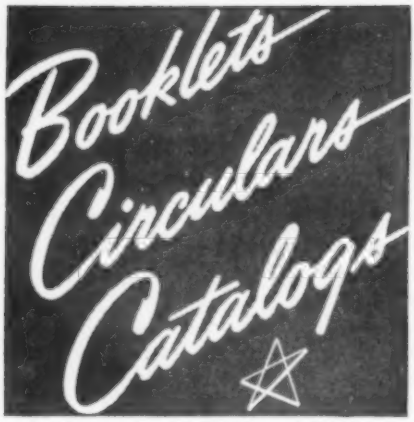
WILMINGTON, DELAWARE



Electric Heat Units

A 4-page bulletin, printed in two colors, briefly describes and illustrates several different applications of electric heat units—some for heating liquids, heating factory space, drying paint coatings, and many other uses. Copy of the bulletin can be obtained from Edwin L. Wiegand Co., 7500 Thomas Blvd., Pittsburgh 8, Penna.

Paint Testing Instrument Catalog

Henry A. Gardner Laboratory, Inc., 4723 Elm St., Bethesda 14, Md., has issued a 36-page, comprehensive catalog of testing instruments for the industrial painting and finishing industries.

Instruments for testing viscosity, film thickness, abrasion, hardness and adhesion, gloss and color, temperature baths, and other miscellaneous testing devices are shown and described.

Rubber Linings and Coverings for Tanks and Products

An attractive 60-page loose-leaf book 8½x11-in., colorfully illustrated and bound with tubular plastic, lists the "Perma-Line" of rubber tank linings, rubber dip-coated products, rubber linings for industrial piping and fittings, acid-resisting brick and mortar, metal and rubber products and accessories.

A paragraph from the foreword of this interesting and informative book states that "Perma-Line's corrosion and erosion resistant products, installations and services have enjoyed wide recognition for quality and durability in many of the nation's industries".

Linings made of the proper kind of Koroseal or Neoprene (synthetic rubber) prevent corrosion of tanks, drums and containers from various kinds of acids and alkali solutions and fumes.

A request for the book, on stationery bearing your company's letterhead, will be honored by Perma-Line Rubber Products Corp., 1755 N. Winnebago Ave., Chicago 47, Ill.

New Roto-Finish Catalog

All the facts that every user needs to know about the original Roto-Finish process are contained in the latest Roto-Finish catalog now offered to the finishing trade by the Roto-Finish Co., 3700 Milham Road, P. O. Box 988, Kalamazoo, Michigan. The book shows in detail how the Roto-Finish process can be used for machanical deburring, descaling, brite honing and coloring of intricately shaped products.

Two Bulletins on Humidity

Two bulletins containing detailed information on humidity are offered free. One is entitled "The Moisture in the Atmosphere, Its Nature, Behavior and Measurement"; the other, "Vapor Barriers for Dehumidification." Both were prepared by professors Elmer E. Queer and E. R. McLaughlin of State College, Penna.

These bulletins are available without cost from the Pittsburgh Lectrodryer Corp., Pittsburgh 22, Penna.

New Folder Describes Floor Treatment

A folder in which industrial floor problems are analyzed and suggestions given for providing a walkway surface that offers a high resistance to slipping under a wide variety of service conditions, can be had upon request from The Wilbur & Williams Co., 130 Lincoln St., Brighton 35, Mass.

Rubber Coat Skid Grip Floor Compound is described, along with other floor treatments. The material may be applied by brush on wood, concrete or mastic floors.

Color Movie Shows How To Fight Fire

"Not Too Hot to Handle," a new 18-minute, color sound film has just been released by Walter Kidde & Co., Inc. The picture demonstrates approved fire extinguishing equipment and procedures for class A, B, and C fires.

During the film, professional technicians use all recognized types of portable extinguishers. Wood, flammable liquid, and

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FOUNDATION FOR FINE FINISH

1. Dries with lacquer speed.
2. Has double lacquer solids at spray gun.
3. Fills very well—sands easily.
4. Adheres tenaciously to steel, wood, presdwood, aluminum, galvanized metal, etc.
5. Holds out lacquer, synthetic or oleoresinous enamels exceptionally well.
6. Thins 3:1 with xylol.
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8. Ground well to smooth texture.

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THE VARNISH PRODUCTS COMPANY

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NON-INJURIOUS ELECTRO NON-INFLAMMABLE

COLD STRIPPER

FASTEST *in Action* LOWEST *in Price*

WRITE FOR TESTING SAMPLE OR ORDER
5-GALLONS AT DRUM PRICE

Specify whether dip or brush type is desired

Allied Finishing Specialties Co.

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electrical blazes are put out in seconds by the application of the proper extinguisher in an approved method.

Among the agents demonstrated are water, soda acid, carbon dioxide, dry chemical, foam and vaporizing liquid.

The new film is available nationally through any of Kidde's six district offices (Chicago, Detroit, Philadelphia, Dallas, Atlanta, Los Angeles) or upon request to any Kidde distributor.

New Dust Collector Catalog

The complete line of Torit Dust Collectors is described in detail in a new illustrated catalog of 24 pages 8½x11-in. recently issued by the Torit Mfg. Co., Walnut & Exchange Sts., St. Paul 2, Minnesota.

Included in the catalog are both cabinet and cyclone type dust collectors, in sizes ranging from 1/3 to 5-h.p. Also shown are a complete line of fittings and accessories, and a series of blueprint sketches giving the over-all dimensions of each unit. The unusual adaptability of Torit Dust Collectors to meet specific problems and production setups is shown by numerous illustrations.

New Flow Meter Bulletin

A new 40-page bulletin describing the company's "Series 500" line of Flow Meters has just been published by The Bristol Co. of Waterbury 20, Conn. The bulletin describes instruments for recording, integrating, indicating, automatic controlling, and telemetering the flow of steam, water, air, gas, oil, solutions, and other fluids. Both mechanical and electric type flow meters are described in a full range of models suitable for a wide variety of uses in industrial plants, utility companies, and process control work.

"That's the last time he'll bother anyone around here, Miss Halley. I fired him!"

Tool Steel Handbook

Publication of "Tool Steel Handbook," a 197-page volume designed for engineers, teachers, metallurgists and others interested in tool, die and allied steels, is announced by Allegheny Ludlum Steel Corporation.

"Tool Steel Handbook" brings under one cover for the first time the combined data and technical information of Allegheny Ludlum and many of its customer companies. Free copies of the volume will be sent to qualified persons on request to Allegheny Ludlum Steel Corporation, 2020 Oliver Building, Pittsburgh 22, Pa.

The Mahogany Book—8th Edition

The Mahogany Book, in its eighth edition, is just off the press and is now available to all elements concerned with the woodworking industry. Its size remains the same as in previous editions. Heretofore the covers have been a reproduction of mahogany, each edition in a distinctive pattern. The cover of the new edition shows twelve different finishes on mahogany, from light to dark. These illustrate the wide range of finishes that are possible on mahogany to meet modern needs.

The forty color plates of the various figures and cuts in mahogany remain the same and carry the same numbers used in previous editions. These plates are the "Bible" in the veneer and plywood industry and are widely used in architectural and other design specifications calling for the use of mahogany.

The text has been given a new arrangement with additions and rewrites to meet changing conditions. A substantial number of illustrations have been added or changed and now number seventy plates.

The Mahogany Book is probably the most complete monograph on a single wood that ever has been printed. It includes 51 chapters and covers, in condensed form, the history of mahogany, its sources, properties and appearance. It includes tropical lumbering and transportation and the making of lumber and veneer in this country. On furniture it gives a chonological table of periods and styles with chapters on periods from Queen Anne to Modern. The other important uses of mahogany are described and some 60 additional uses listed.

The Mahogany Book may be obtained by addressing the Mahogany Association, Inc., 75 E. Wacker Drive, Chicago 1, Ill.

THINNER Uniformity

It matters not whether it's just a 5-gal. special blend, or as much as a 12,000-gal. tank car quantity, the new Barker plant, completely automatic in every detail, produces lacquer thinners that are absolutely UNIFORM.

This dependable UNIFORMITY is a quality that our customers rely upon to produce the best results in their painting and finishing departments.

• Partial view of our new plant and storage facilities—250,000 gallons capacity.

BARKER CHEMICAL COMPANY

One of America's Largest Manufacturers of Lacquer Thinners

700 EAST 138TH STREET • CHICAGO 27, ILLINOIS

Industrial FINISHING Editorial

Complete Finishing Equipment Setups

While the same basic principles of finishing are employed in both short runs of small odd lot jobs and long runs on a mass production basis, an equipment setup for finishing large quantities of products that are alike or closely related can be much more uniformly specialized and more completely mechanized. In fact, it needs to be specialized to assure uniformity of results with minimum wastage of materials, supplies and labor. On these large runs any small savings that are possible in finishing a single unit—these will run into substantial amounts when multiplied by hundreds, thousands or tens of thousands.

With really specialized mechanical equipment, uniformly high quality of finish and workmanship can be developed and maintained more easily with fewer workmen and with greater precision. And wherever any wastage can be skipped—like overspray, use of various supplies, manpower, etc. — the savings develop rapidly. All of this helps to make the investment for special equipment economically sound, as has been proved and is being proved repeatedly by prosperous companies.

The effectiveness of any finishing setup that has come into being through repeated additions to enlarge what was formerly too small, is limited. After so much enlarging or adding to, the finishing setup develops weaknesses and awkwardness which obviously detract from the maximum potential efficiency of a modern setup designed to deliver the same output. When or preferably before this condition becomes apparent, management should consult a responsible engineering firm and ask for plans and estimates on a complete new layout wherein advantage is taken of all possible short cuts and improved facilities that have become available in recent years. Let it be designed to take care of even greater output than is now required; and insist that it be more easily adapted to processing other products which may be substituted for or added to the present line some time in the future.

Test Your Products Before You Sell Them

Any product that is worth the sales effort, the time and the expense necessary to get into consumer's hands, is certainly worth pre-testing to determine its merits.

One of the ten steps to successful development and sale of new products, as recommended by the United States Department of Commerce is: "Test the product in a laboratory and under actual use conditions before releasing it to the market." This excellent advice, if followed, will eliminate many "flops," with all of the grief, headaches and expense they entail.

Many companies can not afford to support a testing laboratory within their organization but this fact need not present a serious handicap. It certainly is no good reason for not thoroughly testing the product before

NIKOLAS

SINCE 1890

IT'S A FACT

More **NIKOLAS LACQUERS** have been used in the finishing of brass musical instruments than all others combined!!

For over fifty years, manufacturers have found that items finished with **NIKOLAS LACQUERS** will give results they are proud to put their reputations behind.

Eye Appeal Sells Your Product!

FOR INFORMATION, SAMPLES AND RECOMMENDATIONS WRITE—WIRE—OR CALL

G. J. NIKOLAS & CO., INC.

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Stille-Young

★ LABORATORY ANALYSIS

★ PRACTICAL EXPERIENCE

★ TRAINED SERVICE REPRESENTATIVES

Can be of help to you in solving finishing problems whether of production or maintenance.

Lacquers Fillers

Stains

Enamels Paints

★

The

STILLE-YOUNG CORPORATION

2752 N. Clybourn Avenue

Chicago 14, Illinois

it is marketed. There are several reputable commercial testing laboratories scattered over the country, any of which is equipped to test products, both in the laboratory and with consumers under actual use conditions.

It pays to definitely know what the product will do in the consumer's hands. The company's reputation is worth far more than the individual product.

Planning Improvements; Looking to Future

When you are planning to make plant improvements, or to replace old equipment with new, it is always wise to keep future production requirements in mind. Normal growth follows in any healthy business. Among the new products likely to be added to your line, some may be of sizes and shapes that are different from those originally produced.

Of course no one can predict the speed of a concern's growth, or the extent of increase in its volume of production. Neither the finishing system nor the equipment can even approach a perfect setup for all time. However, some of the equipment can be installed to meet present needs, but with an eye to the future.

For instance, an oven for baking the finish can be of such a size and be so located that it will not only do a satisfactory job when installed, but at some future time it can be extended, at a minimum of cost, to take care of greater production.

1952 Catalog of
Paint Testing Apparatus
NOW AVAILABLE.
Write for your copy.
GARDNER LABORATORY
Bethesda 14, Maryland

FOR FINE FINISHING . . . .
AT LOW COST . . . .
***Specify* NEW PERIOD**

It's no wonder leading manufacturers count on New Period Production Finishes. For here's assurance of quality at low cost . . . assurance that you can't buy finer finishes at any price.

- Fillers and Stains
- Lacquers—Clear and Semi-Gloss
- Sealers
- Lacquer Enamels—Flat and Gloss
- Synthetic Enamels

Write for 5 Gallon Working Sample at Drum Price

MANUFACTURERS OF FINE WOOD AND METAL PRODUCTION FINISHES

NEW PERIOD Production Finishes

ESTABLISHED 1917

NEW YORK WOODFINISHERS' Supply Co. BROOKLYN

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The conveyor should have sufficient capacity to accommodate a reasonable variation in the size and weight of products it carries. In locating the conveyor it is advisable to avoid sharp turns, and avoid getting it too close to walls and partitions. If space is at a premium it is better to load and unload at floor level; and then, if necessary, go to a higher level. For instance, spray booths can sometimes be installed on a balcony.

It is also advisable to allow space for one or more straight sections of an overhead conveyor ahead of the bake oven. Sometimes you may want to install a flow coater, or make up a U-dip in the conveyor for dipping products in either a portable or stationary tank.

Slightly oversize (for present needs) power washers, vapor degreasers or immersion tanks used for metal cleaning and surface preparation will often save the cost of replacement in the not too distant future.

Consulting with, and taking the advice of experienced finishing engineers and reputable equipment manufacturers usually pays big dividends.

PAINT STRIPING TOOL

NEW EYE APPEAL FOR YOUR PRODUCT—LITTLE OR NO LABOR COST!

Amazing new Paint Striping Tool makes it easy to do expert striping. Paints straight, curved, circular or evenly spaced parallel lines simply and easily. Simply fill Tubular Glass Paint Fountain with paint or lacquer and Knurled Wheel Tip feeds paint evenly. Tips interchangeable — 1/64", 1/32", 3/64", 1/16", 5/64", 3/32", 1/8"—jaws split apart for easy cleaning.

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- CERAMICS AND ALL PAINTED OBJECTS

DEALERS—MASTER PAINT STRIPING TOOL packed in display cartons of 1 doz. Fast, profitable seller. Write for illustrated circular, discounts.

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How To Save Money Safely On Thinners

We make nothing but thinners—For 27 years we have been saving money for big and little customers. They like us because we make the thinner they want at a money-saving price!

Let us show you how a Lacquer Thinner SPECIALIST can supply you with the right Thinner . . . and still save you money.

Just fill out form below and mail today. We'll work out a Thinner *especially for you*, and send a sample. Think we can do it for 85¢ or less a gallon too!

POTTER PAINT CO., INC.
CORTLAND 1, N. Y.
THINNER SPECIALISTS

The product we make is:_____
We use Lacquer Thinner for:
☐ Spray ☐ Dip ☐ Cleaning ☐ Other_____
We use Lacquer Thinner on:
☐ Metal ☐ Wood ☐ Other_____
We want it to dry:
☐ Fast ☐ Slow ☐ Medium

Name_____
Address_____
City_____ Zone____ State_____

Fire-Fighting Equipment OK?

What about those fire extinguishers? Have they been inspected recently? Maybe it's been a long time since they were used, perhaps not since they were installed. When they are needed, fast action will be necessary. Excitement and perhaps panic will be in the air; no time to fix a balky or out-of-order extinguisher then. Remember this: The less a fire extinguisher is used, the greater the need for regular inspection.

Fires occur when and where you least expect them. If one hits your plant and if the extinguishers are empty, or the hose is weakened from age and non-usage, or if the hose nozzle is stopped up with dust, grease, etc., you have something more than an annoying incident; this is a tragedy, the size of which can only be measured by the loss due to fire.

Keep New Equipment "Up to Par"

★ New equipment in the finishing department is used at near 100% efficiency—for a while. Then, as some of the newness wears off and enthusiasm subsides, old work habits may return. Shop personnel may forget some of the training received from the factory representative, and there is less pride in evidence when showing what can be accomplished with it. At the end of six months, efficiency may have dropped considerably, due to

---

★ *Guest Editorial . . . Many readers can write an excellent editorial—two or three paragraphs that present a timely suggestion or valuable idea which will stimulate thought on a live subject. The Editor welcomes guest editorials and pays for those used.*

failure to use all features of the new equipment in a proper and complete manner.

Much of this problem will disappear when management insists upon the equipment being kept clean, and prolongs the period during which workers take pride in turning out capacity production with the new equipment. The following program will help to stretch this initial getting-acquainted time until employees have made a habit of doing every operation with an eye toward top-notch efficiency.

1) Insist that the new equipment and space around it be kept clean and well lighted.

2) Encourage local groups to visit the finishing plant or department when you have installed any major pieces of new equipment.

3) Allow your men to "show off" a bit when workers from other parts of the plant drop in to examine the addition to the finishing department.

4) Management should maintain an interest in it for several weeks, consulting with workers and bringing out ideas for continued operation at a high standard of efficiency.

5) Encourage the men to discuss the new equipment with factory representatives after the preliminary pe-

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SNYDER BROTHERS COMPANY
Manufacturers of Quality INDUSTRIAL LACQUERS
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SEND US YOUR MARKING PROBLEMS!

You can save production time and marking costs by using the Glidden Screen Process system for identification on an endless number of products. Send us your problems. We'll answer them promptly without obligation.

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NOW! Tack Cloth in Handy Rolls *or* Cut Bulk

Cut off any size piece and use as needed.

Now you can get Tack Cloth packed the way it's easiest for you to use—either in 150 yard rolls of 36" wide cloth or in handy cartons—100 or more Tack Cloths to the carton.

No matter which way you buy it, you can be sure that every square inch will **stay** SOFT and TACKY until the very last bit is used up.

The Cut Bulk size is 18" x 36"—folded to 4½" x 18" for easy handling. **All of our Tack Cloth is Spontaneous Combustion-Proof, Lint-Free and Wax-Free.** It's clean and sanitary—there's no waste.

Write today for complete information, prices and samples.

Already cut and folded, ready to use.

Baughn Chemical Products Company

"The Tacky Wiper Specialists"

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Also Individually Packed in Glassine Envelopes —144 to the Carton.

A WARRANTY OF SATISFACTION IN EVERY CARTON

riod and during the time when workers seek to get adjusted for maximum output.

6) Keep the equipment in perfect working condition. Equipment that is allowed to become soiled and just slightly out of order or patched up doesn't look attractive and doesn't command respect—and efficiency soon suffers. Extend as long as possible the time during which men take personal satisfaction in using the equipment, thus proving to themselves and others in the finishing department what can be done by modern equipment and capable employees.—*G.M.D.*

U. S. Plywood Corp. Opens New High Point Branch

A new, modern sales and distribution unit at High Point, N.C., is announced by United States Plywood Corp.

Located at Prospect St. and Railroad, this unit replaces a smaller building which served the Carolina area with Weldwood plywood and plastic products since 1941. Charles W. Perry manages the High Point branch.

Binks Spray Painting School

The Binks Mfg. Co., 3122 Carroll Ave., Chicago 12, Illinois, announces schedules through June for its spray painting school. New classes will be held Monday through Friday:

April 2 to 6 inclusive
May 7 to 11 inclusive
June 4 to 8 inclusive

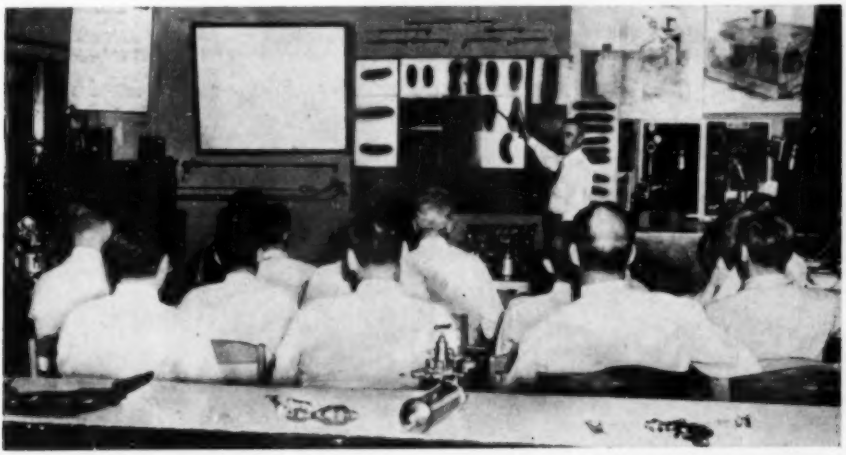
Many company officials have found that attendance at the Binks school helps in two ways:

1) It makes management more informed. The facts learned at the school about spray finishing will contribute to better and faster decisions.

2) It makes possible the training of key personnel with minimum interruption to production. The company need send only its foremen, department heads or other supervisors. The school teaches these key people modern spray painting methods and equipment. When they come back to the plant, they're better equipped to establish more efficient spray painting techniques; to select the correct equipment; to train workers under them; and to trouble-shoot on production-line painting.

The Binks Spray Painting School is especially suitable for training officials, foremen and supervisors. Classes are limited in size so that each individual obtains maximum personal atention from the instructor. Furthermore, classes are composed of men with similar interests.

However, Binks points out that enrollment is not limted to officials and supervisors. Anyone who will benefit from the training is welcome. [*Con't on p. 122*]



Here the class at Binks School is discussing faulty spray painting patterns; their cause and their correction. This is just one of several sessions in which Mr. Beacham gives special attention to proper painting techniques and trouble-shooting methods.

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SEE US ABOUT YOUR GOVERNMENT SPECS

We're long time specialists in tailor made finishes to meet government SPECS and your own production schedules.

- Lusterless, semi-gloss lacquers
- Wrinkles
- Primers
- Thinners
- Specialty Products

SEA-LAC FINISHES

Duralac Chemical Corp

84 LISTER AVE., NEWARK 5, N. J.

William Beacham, nationally-known paint chemist and spray painting authority, is in charge of the classes, which are conducted at the Binks plant. Mr. Beacham's experience as Director of the Binks Research Laboratory will be very helpful to those who have questions about the proper application of specific finishes.

During the 5-day program, each member of the class examines and discusses the operation, maintenance and repair of spray guns. Men who have never used a spray gun before are taught correct spray painting methods. Trouble-shooting gets a lot of attention. The common causes of faulty spraying are described and methods of avoiding or correcting them are clearly explained.

Several sessions deal with the automatic spray guns that are the heart of many automatic finishing systems. The practical applications of spray booths are also studied. By the end of the week, everyone is well acquainted with the construction and operations not only of spray guns, but also of such important accessories as oil and water extractors, air compressors and portable painting units. No tuition is charged.

Promotions in Glidden Co.'s Graphic Arts Dept.

Promotion of Tom Ross to the position of assistant manager of the Graphic Arts Department of the Glidden Company was announced last month by Bert C. Zahn, manager of the department.

At the same time, Mr. Zahn announced the appointment of Tom L. Sample, Jr., to the Graphic Arts Department for service and development of graphic arts activities in the Cleveland Central region, succeeding Mr. Ross.

Mr. Ross was graduated from the Officers School of New London, Conn., and served as Deck Officer in the Merchant Marine for seven years. He is a graduate of Rocky River High School.

Mr. Sample is a graduate of West High School and Ohio State University. Prior to his appointment he was with another company in Ohio for 14 years.

Tom Ross and Tom Sample, Jr.

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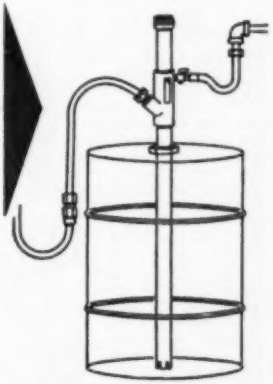

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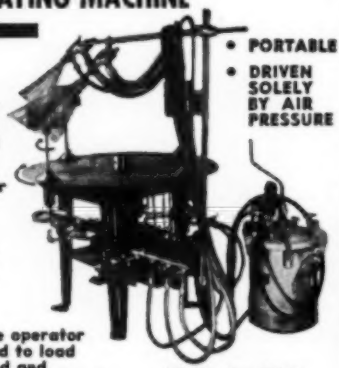

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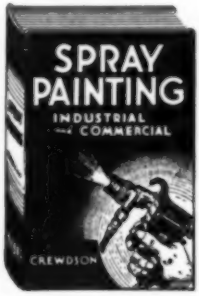

This new book covers the fundamental principles of spraying technique, together with the latest developments and practices of this craft. Covers common paint pigments, paint extenders, enamels, oil and spirit varnishes, shellac, lacquer, synthetics, all types of modern air guns, spraying technique, spraying standard materials, spraying defects, their cause and remedy, flock and suede finishes, striping and lettering, pearl lacquer finish, also automatic spraying, electrostatic spraying, agricultural spraying and automobile spraying. Ends with the sprayers "Ten Commandments."

INDUSTRIAL FINISHING
1142 N. Meridian St. Indianapolis 4, Ind.

At Spray Painting School

A better understanding of the principles involved and of the use, operation and care of DeVilbiss products is regularly carried from the spray painting classrooms at the company's school and research center.

Here George Stoddard, at right, DeVilbiss director of training, explains the atomization of paint at the business end of a spray gun and the application of the material to a surface. Left to right: Don F. Malone of the Stambaugh Thompson Co., Youngstown, Ohio, holds an actual model of the spray gun being described by Mr. Stoddard, while Harold A. Wood, of Factory Supply Co., Muskegon, Mich., makes notes.

Explaining operation of spray gun.

These men were members of a class of 20 jobber representatives who recently attended a two weeks' session at DeVilbiss. In addition to a theoretical training, students also are given practical training in the "work shop" of the school.

The school is operated free of charge to users and sellers of DeVilbiss products. Application may be made by writing to the DeVilbiss Co., Toledo 1, Ohio.

Industrial Ovens' Sales Meeting

Sales representatives for Europe, South America, Canada and the U. S. were afforded a preview of Industrial Ovens' new laboratory for research and development in the coating field during the company's annual sales convention in Cleveland, Ohio, February 17-19. Policies and methods that will be put into effect so that the various industries served will derive maximum benefit from the laboratory facilities were outlined by C. A. Litzler, president, and J. K. Gillett, sales manager.

Oakite Moves General Offices

Oakite Products, Inc., manufacturer of specialized cleaning and allied materials, has moved its general offices from 22 Thames St. to new and larger quarters at 19 Rector St., New York 6, N.Y.

Factors contributing to the move, which represents still another step in Oakite's continuing expansion program, have been the increased use of Oakite cleaning and related materials by industry and the steadily growing demand for technical advisory service and special research. Acquisition of the new office space will permit a substantial increase in the facilities of the Oakite Chemical Research and Engineering Laboratories, and is designed to assist the company in providing augmented technical advisory service to industry in connection with problems encountered in today's stepped-up civilian and defense production.

M. & W. Adds Technical Service Man in Northwest

Mr. Henry J. Adams, recently appointed to the Maas & Waldstein Co. sales force, has been assigned to cover Eastern Massachusetts, Rhode Island, Maine and New Hampshire. Mr. Adams is experienced in the field of specialized production finishes and has completed a training course in the company's Research and Development Laboratories and Pilot Plant.

It is expected that Mr. Adam's experience and knowledge of handling all types of specialized production finishes should undoubtedly be of value to manufacturers in the New England area, making their finishing problems simpler.

C. J. Pecoy, Sales Mgr. for Body Bros., Inc.

Mr. Louis F. Body, president of Body Bros., Inc., industrial paint manufacturer, Bedford, Ohio, announces the appointment of Mr. Charles J. Pecoy as sales manager of Body Bros., Inc.

Charles (Chuck) Pecoy has been connected with the industrial paint field for many years and has spent the last 12 in the sales department of another paint manufacturer in Ohio. He has had a wide variety of experience with the production - finishing problems from small toys to giant road building machinery.

Mr. Pecoy graduated from Shaw High School in Cleveland and attended Miami University at Oxford, Ohio, where he was a member of Beta Theta Pi.

STAIN-FILLER FORMULATOR WANTED.

Small, well established industrial wood coating manufacturer has need for a stain and filler formulator. We desire someone who has a thorough knowledge of color pigments, formulations of pigment oil wiping stains, NGR stains, wood paste fillers, and combination stain/filler products. State age, education, and practical background. Detail regarding duties and compensation will be discussed during personal interview held at our expense. Replies handled in utmost confidence. Address direct to MAX A. FRITZ, Vice President, Robertson Company, Inc., 1315 W. Kentucky Street, Louisville, Kentucky.

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MANUFACTURERS REPRESENTATIVES WANTED.

Manufacturers representatives with engineering background wanted who have industrial following to sell specialized factory maintenance coatings. Exclusive territories still available. Give full details, background, experience, territory covered, etc., in first letter. Will arrange personal interview. THE DENSOL PAINT CO., Cleveland 5, Ohio.

CHEMICAL ENGINEERS OR CHEMISTS WANTED.

Research and Development of Industrial synthetic finishes for wood and metal, male. Analytical chemist for quality control, female. Established national manufacturer. Midwest location. Che. or BS. Salary in line with education and experience Address IF-876, care Industrial Finishing.

CHEMIST WANTED.

Recent Graduate for Organic Coatings Laboratory. Experience not necessary. Give full personal data, education, experience and salary expected. Address IF-877, care Industrial Finishing.

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SALESMEN WANTED.

Growing Mid-Western manufacturer of lacquers, enamels and specialized finishing products. Straight commission. Non-conflicting lines O.K. Write giving full details, experience. Confidential. Address IF-878, care Industrial Finishing.

SALESMEN WANTED.

Well-established Chicago manufacturer of full line industrial finishes wants experienced salesmen with following in Indiana and Illinois territories. Prefer men who live in the territory. Write in confidence. THE CLINTON COMPANY, 1210 Elston Ave., Chicago 22, Illinois.

SALESMAN WANTED

To represent growing Western New York industrial paint manufacturer of complete line of lacquers, enamels, plastic and specialty finishes. Pittsburgh, Cleveland, Syracuse, Indiana and New Jersey territories. Men with following or experienced. Confidential. Address IF-874, care Industrial Finishing.

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A Midwest paint manufacturer desires a young man about thirty years old, familiar with the application of all types of Industrial Paints for a position as salesman in state of Indiana. Golden opportunity for industrious young man. No selling experience necessary. Will place on territory immediately with salary, commission and expenses. Also will furnish car. Address IF-879, care Industrial Finishing.

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Attractive opportunity for experienced man with some active accounts to take over established territory in northern Illinois and southern Wisconsin. Prominent Midwest manufacturer, making complete line of lacquers, enamels, varnishes and approved government specification finishes, offers full cooperation to right man. Address IF-880, care Industrial Finishing.

WANTED TO BUY.

Will buy your dirty Thinners and Solvents. Send samples or letters giving approximate contents and solids. Address THE JOHANN CO., 8547 S. Ashland Ave., Chicago, Ill.

8 INFRA-RED OVEN UNITS FOR SALE.

36-bulb capacity. Six rows of sockets with 6 to a row. Flexible rows stainless steel reflectors 48"x48" wth stands. MONTICELLO NOVELTY CO., INC., Flora, Indiana.

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Dirty lacquer solvent can be shipped to us for distillation and returned to you clean and ready for use. With a 200 mile radius of Louisville a substantial economy can be realized. Cost runs from 11c to 19c per gallon. KENTUCKY COLOR & CHEMICAL CO., 600 N. 34th St., Louisville 12, Ky.

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Thru-type monorail conveyorized Detrex degreaser. Excellent condition. Approximate dimensions 40' long x 5' wide x 14 high. Work clearance 30" wide x 42" high Complete with solvent still and all necessary controls. Address IF-881, care Industrial Finishing.

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Blakeslee D-65-P. 10½' long, 3½' wide. Working depth 3'. Steam heated. New. Never used except for test. Vapor spray type, complete with storage tank, ¼-hp. motor only needed, inspection may be made in Chicago. F. H. HILL CO., INC., 954 Washington Blvd., Chicago 7, Ill.

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